Chapter 6
The Pressure Cooker Approach for Open Standards Development

Erwin Folmer
University of Twente, The Netherlands

Jasper Roes
TNO, The Netherlands

ABSTRACT

The new open world requires new approaches for IT development, and in particular for open standards. In the old world an average development time of 36 months (for European standards) is current practice, but not aligned with current and future needs. This chapter introduces a pressure cooker approach in which openness plays a crucial role in the development leading to an open standards with positive effects on adoption. Several case studies show that the average development time is reduced to an average of 25 weeks, that the approach is still improvable, and that users of the developed standards are to a certain extend satisfied with the quality of the standard. The pressure cooker concept fits within the development and management model of open standards (BOMOS) mainly for dealing with the operational development steps.

INTRODUCTION

Today´s businesses are in a dynamic and more and more connected environment. Organizations try to connect their business processes for improving productivity and higher efficiency (Harvey and Novicevic 2006). Organizations need interoperability to align their processes. Data standards support the achievement of interoperability by providing clear and straightforward definitions, layouts and processes for everyone who is willing to use it (Folmer & Verhoosel 2011). Data standards make sure that the different parties in the cooperation use the same names, measurements and way of doing business during their inter-organizational work. Standards set specifications for interfaces that make it possible to connect these systems to each other (Van Wegberg 2004). When the organizations 'speak the same language',

connecting their business processes is a much easier task and in the end reaching interoperability is easier. This is the reason that it is generally accepted that interoperability is supported by Data standards. The importance of the standards in the achievement of interoperability explains that the Standardization is essential for organizations. Companies lose a lot not having the advantage of interoperability. Almost $3.9 billion annual loss in the electronics industry and $5 billion annual loss are estimated in the automotive industry, just because of missing standards (Steinfield, Markus et al. 2011). Moreover, the lack of integration and data Standardization is making health care services inefficient and costly. Hospitals have $29 billion cost yearly because of errors. Venkatraman et al. (2008) claim that three out of four errors can be eliminated by better use of information technology. These losses could be eliminated with appropriate levels of interoperability. However, the IS Data standards Development processes are far from the desired maturity. One main concern is the average Development time of the Data standards. Van Wegberg (2004) claims that speeding up Standardization will be valuable if the benefits from the standard are time-dependent. Currently, the average time of standards Development is 36 months (EC 2011). The importance of the problem is shown by the European Commission too, who demands that before 2020 the average time is reduced by 50%, down to 18 months (EC 2011). However one could argue whether 18 months is acceptable or not, why 18 months, and how about quality? The need of fast solutions is especially important in the ICT field. Various actors of the same or different industries work together and their productivity can be seriously hindered by the lack of appropriate connectivity of their IT systems. To fully realize the benefits of e-business, common standards are required to define the syntax and semantics of web-based information sharing among firms (Zhao, Xia et al. 2005). To have an even more complicated situation, companies are waiting for the solutions in a fast changing technology environment.

In the ICT domain, industry consortia set the vast majority of important standards, in contrast to formal standards organizations (Rada and Ketchell 2000). Industry consortia are growing in number and importance; they cannot be neglected anymore in government policies (EC 2009; Kroes 2010; EC 2011). In the Data standards area there is often one dedicated consortium that maintains one specific data standard for a specific domain. However both large industry consortia and formal bodies are aiming for the inclusion of more of these Data standards. For instance OMG, The Open Group and W3C, are all industry consortia involved in Data standards for different domains, and currently W3C is offering a free online platform that can be used by Data standards initiatives. In contrast to popular belief, industry standards are often more open than formal standards: many of the industry consortia have open characteristics while the democratic process and free availability of formal standards is overestimated (Egyedi 2003; West 2007). The formal bodies bring their formal status into play, while the industry consortia offer their expertise and flexible processes (Folmer 2012).

The Openness of Data standards is of highest importance for the adoption of the standard within an industry domain, the adoption of closed standards is fairly impossible. In general approaches for Development and Management of Data standards, such as the BOMOS approach (Folmer and Punter 2011) endorsed by the Dutch government, implement the 10 requirements view (Krechmer 2009) that shows that Openness is more than the license, and that Openness is to a large extent related to the Development approach of the standard.

Speed and Openness are part of the broader concept quality of standards (Folmer 2012). Speed on itself is not that important however the related concept of the timing of standards is. Timing means that standards should be available when needed by the stakeholders. Since standards often arrive too late

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