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# Standards Education Policy Development: Observations based on APEC Research

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## ABSTRACT

Since the late 1990's, governments or national standards organizations have started paying increasing attention to standards education in schools and universities. Many of these initiatives were based on their education policies laid down in a national standards strategy. This paper explores the common and different development status of education policy in national standards strategies in twenty countries. As a result, this paper presents some similarities and dissimilarities in the policy. The resemblance of policies might imply that standards education is considered as a common interest. The differences could indicate that the different interests and socio-economic infrastructure per country require differences in standards education strategy. Also, these differences could indicate a lack of recognition about possible policy considerations and ideas. In this case, the policies of some countries could be referred as good practices as to other countries when they develop their national policy or strategy for standards education [Article copies are available for purchase from InfoSci-on-Demand.com]

Keywords: APEC; Policy Development; National Standards Strategy; Standards Education

### INTRODUCTION

Education is a social infrastructure which enables citizens to prepare for intellectual and professional life in a society. Given the socio-economic impacts of standardization (Blind, 2004; Centre for International Economics, 2007 ; DTI, 2005 ; WTO, 2005), one might expect students in schools or universities to be educated about the fundamentals and implications of standards and conformity assessment to prepare them for their career in government, businesses, standards and conformance related organizations

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or research institutions (Kurokawa, 2005). However, the majority of the just-graduates from schools or universities have hardly heard about standards and conformance in their classes; they rarely recognize its importance or impacts in the real world, and they are not ready to quickly adapt themselves to relevant job tasks like developing technical standards, or business strategy or trade/regulatory policy related to standards and conformance.

By the early 1990s - most countries just offered some standards education for professionals like business experts, government officials, and standardization committee members. The situation changed since the late 1990's; governments and national standards bodies in several countries worldwide have started paying increasing attention to standards education in schools or universities (Kurokawa, 2005; de Vries and Egyedi, 2007), that is to say formal education. One good example is Korea; there were about one hundred courses in fifty universities offering classes about standardization in 2008 and those standardization classes were initiated by the Korean national standards strategy. Some of the policy makers in the arena of standardization want to question how other countries develop national strategy (policy) for education about standardization, if any, and its relationship with practices. This article explores the commonalities and differences in development status of education policy in the national standards strategies in twenty countries - sixteen Asia-Pacific economies and four European nations, and tries to identify some of the reported successes which could be useful for the policy makers in other countries.

The number of academic studies on standardization education is very limited. De Vries (1999) applied Kuhn (1972)'s distinction of subsequent periods in the development of a scientific discipline to standardization, and concluded that the standardization 'discipline' has shown the first characteristics of the cluster period, in which groups of scientists contact each other and the first academic journals in the field appear. Now it seems that standardization shows the symptoms of Kuhn's next period: the specialization period, where occupational and academic training emerge. The need for standards education can be studied in four ways: by making an inventory of current courses, by making an inventory of standards-related tasks and knowledge and skills required for these tasks, by starting at standards-related problems to be solved, and by studying the standardization process and the human tasks related to this process (de Vries & Egyedi, 2007). Needs for standards education have also been addressed in several professional publications (APEC, 2006; ASTM, 2003; De Vries, 2003; Hesser & Czaya 1999; ISO, 2007; Kang, 2005; Purcell 2003; KSA, 2003; KSA, 2006). Kurokawa (2005) distinguished three main target groups for standards education: general standards users, those who actually work with standards, and those who strategically address standards. De Vries and Egyedi (2007) list more specific audiences for standards education and add leaning objectives. Both formal and professional education are needed (de Vries, 2005; Kurokawa, 2005). The next step is to develop a curriculum per target group. De Vries (2005) developed conceptual approaches to the development of a standardization curriculum based on tasks and competences needed, and De Vries and Egyedi (2007) list elements of the contents of different academic curricula which show many common elements. The most recent academic publication is the special issue on standardization education

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