

Chapter XLII

Adoption of Broadband Services: The Role of National Policies

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ABSTRACT

Broadband is seen as a key infrastructure for developing the information society. For this reason many Governments are actively engaged in stimulating investments in broadband infrastructures and use of broadband services. This chapter compares a wide range of broadband strategies in the most successful markets for broadband. This is done through analysis of national policies in three European countries—Denmark, Sweden, and Germany—and the U.S., Japan, and South Korea. We concluded that successful implementation of broadband depends on the kind of policy measures to be taken at the national level. Many countries have provided active support for stimulating diffusion of broadband and national variants of this type of policies in different countries are important for an explanation of national differences in adoption of broadband.

INTRODUCTION

Broadband is radically transforming the telecom sector. First broadband offers opportunities for provision of a host of new services and stimulates demand for broadband connections. Second, provision of triple play enables a bundling of voice, data, and broadcasting services. And third, broadband has created a window of opportunity for new actors including cable operators and public utility companies to enter the telecom market.

Since the year 2000, there has been a tremendous growth in the demand for broadband, and within a few years broadband will become the

most common mode of Internet access in many countries. In most countries promotion of broadband access constitutes an important element in their information society strategy. In the year 2004, American presidential, national performance in broadband was seen to be almost as important as GDP (Fransman, 2006).

A comparison of broadband development in the OECD countries reveals that national policies are important for the penetration of broadband. Successful policies include direct intervention in the form of financial support to infrastructure development in disadvantaged areas, regulation ensuring facility based competition, and facility

measures such demand stimulation and providing common visions for the information society.

It seems that the goal of achieving universal access to broadband services has legitimized a revitalization of traditional industrial policy tools. Broadband policies do not only include improvement of framework conditions and demand stimulation, but also direct or indirect support to the supply side, and it is being discussed to include broadband in the universal service obligation.

Can such types of policies be effective in a globalized liberal economy? Will it be possible to improve a nation's status as an information society and its overall competitiveness through the implementation of a dedicated broadband policy? And what types of initiatives should such a policy include?

First the chapter outlines a number of factors considered to be decisive for penetration of broadband. Second, these factors are used to explain why development has differed in a number of countries both within the EU (Denmark, Sweden, and Germany) and outside the EU (U.S., South Korea, and Japan). Denmark has the highest penetration of broadband and Sweden is among the leading countries with regard to provision of fiber to the home (FTTH). Germany has been included, as it is the largest country within the EU and represents an example of how lack of competition has hampered development. The United States, South Korea, and Japan are the most advanced key markets outside Europe. The chapter will first of all focus on the political initiatives taken in different countries. We will here distinguish between facilitation, regulation, and direct intervention. Facilitation includes improvement of general framework conditions, regulation includes measures stimulating competition and improving market transparency, while direct intervention include direct support to infrastructure development and content production.

The chapter draws partly on results from the EU funded project Broadband in Europe for All: A Multi Disciplinary Approach (BREAD), which has collected information on national experiences within the EU countries and in all the EU member

states and in Canada, the U.S., Japan, Korea, and Iceland (Daele, 2005).

OVERVIEW OF THE BROADBAND MARKET

The penetration of broadband connections has on a global scale increased dramatically during the past few years. The penetration rates within OECD have grown from 2.9 per 100 inhabitants in 2001 to 13.6 in 2005. Within EU15 the growth has been even higher (from 1.6 to 14.2). However, the growth has been very unevenly distributed among countries (Figure 1). Penetration is highest in the Scandinavian countries and in South Korea, the Netherlands, and Switzerland. Greece and Ireland are the countries within EU15 with the lowest penetration rates. As indicated by the OECD data, there is a positive relationship between income and broadband penetration. But this relationship is not without exceptions. In spite of its high income and its position as the country with the longest tradition for using the Internet, the U.S. is positioned in the middle of the OECD countries.

Outside the OECD area, penetration of broadband is more modest. It may be argued that broadband is not relevant in developing countries, where universal access to basic telephone services still is an issue. However also in developing countries broadband is becoming more important as a way to ensure ICT access. By April 2006, broadband was available in 166 countries—twice as many as 4 years earlier (ITU, 2006). This includes low income countries like Ghana and Rwanda. One reason for this rapid expansion is rapidly falling prices. Broadband tariffs have been reduced by 40% during the past two years. A continuation of this development could make broadband affordable for major parts of the population also in developing countries (ITU, 2006). In Beijing, 50% of the populations is connected to the Internet and 64% of those uses a broadband connection (Fransman, 2006, p. 63). In absolute numbers China is today the second largest broadband market. Although the penetration rate for the entire country is comparatively low, 1.3 per 100 inh. in 2004 (UNCTAD,

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