Telecommunications in Transition – Policies, Services and Technologies in the European Community), edited by Charles Steinfield, Johannes M. Bauer and Laurence Caby. (Sage Publications, Thousand Oaks, USA 1994), pp. ix + 307, \$38.95, (pbk), ISBN 0 8039 4606 6 cloth, 0 8039 4607 4 paper.

Telecommunications in Transition is being published at a time of fundamental changes in the telecommunications sector on a worldwide scale. In the last six to eighteen months we have experienced the upcoming of several international telco alliances, e.g. BT/MCI, France Télécom/DPB Telekom/Sprint and AT&T/Unisource, as well as the discussion about the information superhighway and the "merger-mania" between the telecommunications and the media/cable-TV sector especially the U.S. An analysis of new developments and the driving forces behind these changes therefore couldn't be more timely.

The editors intention is to analyze developments that occurred in *European* telecommunications in the last decade from an outside perspective since the European markets are unique and differ substantially from North-American or Pacific markets. The book addresses mainly scholars and students as well as practitioners and contains a lot of background information to enlarge the reacher's understanding of the traditional situation and the ongoing changes in Europe's telecom markets.

Europe can in a way be described as a large number of countries with different characteristics, whereby these countries currently attempt to harmonize their policies and to integrate their economies. The major challenge all authors of the book had to face was on the one hand to describe and explain the differences in market structures and policy instruments between Europe and other parts of the world as well as giving special weight to the diversity of different European markets. It has to be mentioned that, although European countries have some similarities, they are far from homogeneity in the area of telecommunications. The editors have solved this problem by referring to characteristics of specific countries whenever appropriate while always keeping in mind the perspective of Europe as one market and by attempting an analysis of this one region as a whole. Nineteen authors have contributed a total of 15 articles to this publication whereby the topic is dealt with in four major parts entitled (1) Introduction and Conceptual Foundations, (2) European Telecommunications Institutions and Issues, (3) Technological Infrastructure, Services, and Applications, and (4) Emerging Trends and Global Strategies.

The first part contains a description of the traditional structure of European telecommunications markets. Steinfield addresses the problem of the fragmentation of the national European markets. Even if, for example, the status of the different operators can be considered equal and the monopoly areas are defined in a similar manner in most countries, a common policy and regulatory approach for Europe as a whole has been missing for a long time. This has only partly been overcome by the EEC policy because suggestions and directives do not get legislative power until each country has approved of this policy. This leads Steinfield to the conclusion that whenever a common policy is the objective, one has to consider the differing conditions and cultures in the member states of the union. Hereby, a set of possible frameworks towards regulating telecommunications markets is presented. Caby and Steinfield analyze the liberalization process in different market segments and the initiatives taken by the EEC. They conclude that even when all member states of the union agree to a common policy there still remains a lot of choices for each individual country. The potential divergent decisions taken by these countries can refer to the following areas: (1) the structure and tasks of the regulatory body, (2) the status of the traditional telecommunications operator, (3) the extent of service competition in former monopoly areas, and (4) the possibility of competitive infrastructure. Since it is unlikely that countries will coordinate their policies in these areas, the current developments will not result in a homogeneity of European markets in the short run.

The second part – entitled "European Telecommunications Institutions and Issues" – contains five articles giving insight to the complexity of the European market and the interrelationship and interests of the diverse players. The reader is introduced to the political framework of the EEC by Bauer and Steinfield. Their overview is very valuable to readers unacquainted to the functioning of the EEC in terms of developing a common policy and converting it to the telecommunications areas of the member countries. Two papers deal with the influence of specific institutions and their potential impact on the integration of markets. Hereby, Drake covers the different standardization institutions, giving special weight to the European Telecommunications Standards Institute (ETSI) while Ypsilanti and Kelly address the role of the OECD, thereby giving a perspective also from the non-European side of the OECD. These two examples show that the process of integration is a complex theme. This is also true for the topic of trade in telecommunications services (Woodrow and Sauvé). which has been discussed in the Uruguay round of the GATT but still poses some major problems. Schnöring gives an in-depth analysis of R&D-policies in different countries and concludes that major changes occur also in this area. This is exemplified by a look at four major European countries and their approaches towards R&D in the telecommunications area. However, the character of this part of the book is mainly descriptive and lacks an analysis of market developments. Such an analysis would be valuable since policy measures and regulator's decisions always reflect on (potential) market developments. Although information on different market segments is partly given in part three, the editors should have given more consideration to the interplay of market developments and telecommunications policy.

One exception is the article by Müller and Toker on mobile communications in Europe contained in part three which covers "Technological Infrastructure, Services, and Applications". The authors discuss different features of mobile communications, thereby focusing on cellular telephony as the key market and addressing important regulatory issues like e.g. frequency allocation, competition and standardization. It is very unfortunate, though, that the analysis of market trends rests on 1991 data. Especially the development of GSM in Europe is completely neglected. The other authors in this part are dealing with different telecommunications services like, for example basic and enhanced services (Bouwman and Latzer), ISDN services (Arlandis) and the use of telecommunications services in multinational enterprises (Mansell). Connell – reporting on Broadband Services in Europe – is the only one giving an outline of the potential effects of the convergence towards the "interactive- and multimedia-age", respectively, a topic being intensively discussed in this sector for the last two years or so.

The final part – "Emerging Trends and Global Strategies" – consists of two papers covering topics of high interest. Bauer and Straubhaar discuss possible developments in Central and Eastern Europe thereby weighing the pros and cons of different strategies in the telecommunications policy to follow, especially the decision between alternative technologies. Hereby it is interesting to note that the cover page of the book shows a map of Europe which, for example, neglects the independence gained by the Baltic States and the split-up of former Czechoslovakia. Noam and Kramer start off with a provocative hypothesis in their analysis of the developed world stating that "New PTOs have emerged from a turbulent decade with greater power than before." (p. 273). In their subsequent analysis, they discuss the options for policy makers in reforming telecom markets. They identify four major strategies. Firstly, the market structure strategies—covering liberalization, devolution, consolidation and deregulation—secondly, the ownership strategies differentiating between the two forms of corporization and privatization, thirdly internationalization strategies including

transnationalization, international alliances and harmonization and finally competitiveness strategies like industrial policy or vertical integration. These strategies and their eleven subcategories, however, are no clear-cut alternatives, in some cases they can even be considered complementary. Up to now, Noam and Kramer conclude, the traditional TOs have not been hurt seriously by the reforms and market developments. Over the next years the dynamic evolution is likely to lead to new market structures with several suppliers, competing technologies and PTOs being severely affected by their competitors. This final part of the book gives an outline of potential future developments, and it shows that the transition in telecommunications will continue in the coming years.

To give a final evaluation, Telecommunications in Transition – Policies, Services and Technologies in the European Community gives a broad overview over the traditional and current situation and the legal framework for European telecommunications markets. It can be considered a valuable source for readers seeking basic information about the European market(s) while a detailed overview on specific countries and/or on specific market segments must said to be missing.

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