

THE EUROPEAN HOME MARKET

Public procurements - the telecommunications
example

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A report by
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I. FORMAL AND INFORMAL TRADE BARRIERS

INTRODUCTION - A SWEDISH PERSPECTIVE

The economic integration of Western Europe is an issue central to the welfare of all European countries, including Sweden. In 1985, 70 per cent of Sweden's total commodity exports were to Western Europe. If we break down the figures as between the EEC and EFTA countries, 47 per cent of aggregate export went to the EEC and just under 20 per cent to EFTA.

Since then, the dominance of the Common Market has increased with the addition, in 1986, of Spain and Portugal. Western Europe is also dominant on the imports side, and accounted in 1985 for 72 per cent of our imports. The EEC countries occupy a still stronger position, with 54 per cent of imports as compared with EFTA's 16,5 per cent.

The trends in world trade can easily lead to the dismissal of Europe, as suffering from stagnation, rigidity, and unemployment. In the mid 70s, the Middle East appeared to be an insatiable market. The growth rates noted in the Pacific region have exercised a strong attraction. The dollar, so superstrong over such a period of time, created expectations of a firm foothold on the North American continent.

The extra-European markets may fluctuate, up and down. The broad bases of Swedish foreign trade is, and must remain, Western Europe. From the standpoint of trade policy, nothing is more important than our relations with the EEC and EFTA countries - in that order. A meeting of this kind is therefore of major importance also in the Swedish perspective. The problems involved in increased economic integration are many.

The abolition of duties is not the same as free trade, since trade barriers can assume a wide range of forms, both open and concealed, which indeed persist within the EEC. It is this insight that lies behind the EEC White Book, which provides a programme for how a real internal market can be created by the twelve member nations by 1992.

The EEC has estimated that trade barriers put an additional 5 - 10 per cent on the price of internal trade. If industry in the EEC countries can avoid these costs, it will greatly improve its competitiveness.

For a number of years now, the coordination of trade policy has been proceeding slowly, and not much has happened. Following, however, the Luxembourg Declaration, and with a new state of affairs in Brussels, a whole lot has started to happen, and further progress is envisaged.

THE BRAKE APPLIED BY OUR NATIONAL BUREAUCRACIES

It is only natural that such complicated questions as frontier control and technical trade barriers should take time to handle. Much, however, is due to a lack of will, not at the politically responsible ministerial level, but in the national authorities which administrate the trade barriers. The recently concluded negotiations on the introduction in the EFTA countries of a joint, simplified customs procedure constitute one example in which the interests of the Swedish customs control authorities for example long militated against our efforts to integrate.

Another field in which the EEC is concerned that the EFTA countries should pick up their feet is the abolition of technical trade barriers, where the next item on the list

is harmonisation with the EEC's low-voltage rules covering, among other things, electrical consumer appliances.

An area of collaboration to which Sweden is concerned to accord priority is public tendering, which has also been given a prominent place in the Luxembourg Declaration, efforts to achieve collaboration in this particular field seem to have got bogged down.

The EEC countries have a well-developed protectionist system of their own. Insofar as the EEC countries are prepared to open their public tendering to international competition, it will mainly be to the benefit of other EEC countries. There is little hope of any liberalisation in this field in the short term. Practically no understanding whatsoever is evident for the idea of more open public tendering.

THE RULES ON PRODUCT LIABILITY CAN ENTAIL NEW TRADE BARRIERS

It is not just a question of eliminating old trade barriers, but also of preventing new barriers. After many years of investigation, the EEC is in process of harmonising its rules on product liability.

Experience to date in the Nordic, and also the EEC countries shows that far-reaching measures are required to eliminate technical barriers to trade. Within the EEC, an effort has been made to speed up the process by the mutual approval of nationally discrepant standards in cases where it has proved impossible to arrive at any joint European standard. A corresponding form of collaboration can also be traced as regards the mutual approval of test results.

II. POSSIBILITIES AND PROBLEMS ON THE TELECOMMUNICATIONS MARKET: A EUROPEAN PRESPECTIVE

INTRODUCTION

Telecommunications have their roots in the experiments in radio transmission made during the 19th century by among others Marconi, in England. Shortly after that time, radio communication, as we know, became a fundamental fact of life. In reality, however, it was first when the importance of telephony became obvious that the telecommunications proper began to develop. The first telephone calls took place almost exactly 100 years ago. But it was well into the 20th century before telephony became a market.

Even the telex has no more than 30-40 years on the market behind it, despite the fact that it is now generally regarded as a somewhat antiquated form of communications.

The entry of television in the 1950s had an important educational effect. People's understanding of teletransmission increased. But it is only in the 1980s that television is being made really available as a means of company communications, in that the practical handling of video equipment has become easier.

The existing telecom market still bears the characteristics of its early days. Telephony systems are often marketed primarily as large network systems. Even today, our company exchanges connect telephonic messages to a far greater extent than data.

Even now, in the mid 1980s, nets are being expanded as macronetworks, even if the market for local networks has begun to grow in recent years. As yet, however, invest-

ments in telecommunications networks are still dictated by major, often wholly overriding economic considerations. Telecommunications constitute a fundamental structure.

One can also ask how far the development at large of telecommunications in the 1980s is demand driven or technology driven. We shall return to this important question later on.

PRODUCERS ON THE TELECOMMUNICATIONS MARKET

One can note that, on the telecommunications market, large, heavy systems for telephony, with supplementary functions for data, are still being sold. This is particularly true if we consider the market outside the highly developed industrial countries.

The new producing parties on the market are by way of being i) computer companies, ii) large user companies who have acquired an excess capacity for various reasons. Then there are the satellite companies, which are still dominated by TV interests.

The majority of these various parties operate with telecommunications as heavy basic resources in their supply of product. Telecommunications products are not yet sold, so to speak, "over the counter".

Although numerous countries have interests in the production of telecommunications networks, the world market is dominated by a relatively small number of very large companies. A buyer wishing to expand his basic telephony - with supplementary functions for data - can obtain, fairly easily, an overview of the number of serious producers. This is not to imply that it is easy to choose

- few products are as technically and functionally complicated as telecom systems.

The dominant producers are thus, as yet, fairly easy to count, and they are all very large-scale companies. There are three main reasons for this.

- The production of today's telecommunications systems is extremely complicated. Considerable know-how has been necessary in order to build up a production capacity in this field. It has been necessary to gather in know-how from very wide areas, in order to survive on today's market.
- Development costs for the transition from electromechanical to electronic product technology have been, and still are, very high. Very few companies have been able to afford it.
- The marketing of telecom systems has proved to have increasingly many facets. The properties of the products are reflected in the market; multi-functional sales efforts.

Development on the producer side is not static. On the contrary, the production of telecommunications networks is characterised by clear efforts towards concentration. The reason for this is above all the great requirement as regards resources that we mentioned above, for the development of the products and the markets. Government involvement in the various countries concerned has contributed to this process of concentration.

THE DEMAND ON THE PART OF BUYERS

Until the 1970s, the buyer side as regards telecommunications networks displayed similar characteristics. The dominant buyers were the major public administrations and configurations of companies in the most highly developed industrial countries. Again, we find similarities between the actual products and the behaviour of users. Large telecommunications networks were bought by the big public users, who often handled their tendering in a rational manner.

The products procured were initially relatively complete telcom systems, with well-defined technical properties.

Tendering, however, acquired, more and more frequently purely national aspects, and consideration was paid to other factors than just price and performance. This trend has continued.

New types of buyers are now appearing. These are smaller companies with a limited demand in terms of volume. The market is becoming more multi-faceted, with sales both in specialist shops and at "supermarkets".

However, the expanding supply of telecom products is making life steadily more difficult for the buyers. Constantly new systems models and product properties are demanding ever more competent buyers. Among the buyers, too, the need for training is increasing. The public buyers are being faced with demands for greater flexibility.

The question is now often raised of whether the rapidly increasing supply of telecom possibilities is dictated by an equally rapid increase in the demand. Some experts are

now warning against an overexpansion of telecom capacity. Increasingly capable earthbound networks are running into more evident competition from the satellites. How great is the buyers' real demand? What applications will be increasing in importance? Video conferences, data traffic, telephony, videotex etc.?

NEW TYPES OF PRODUCT

Today's telecom products are tending to acquire an increasing strategic importance, in that they help to guide the buyer's communications flow. The exchanges now being installed are placed for the most part at the heart of the company's contact system. Exchanges that handle, on an equal footing, sound, visuals and data, will be seen to an increasing extent as the real epicentra of the company.

Today's telecom systems are still often being configured to handle, for the most part, telephone, quite simply because this is where the demand is greatest. But the situation is changing.

Data communications and other digital applications are increasing in volume, and new services for full-range transmission are beckoning round the corner.

Telecom products are also structurally important for the purchasing companies. Given today's and above all tomorrow's types of telecommunications, a wealth of different company structures can be realised. The efficiency of centralisation can be handled as easily as the accessibility offered by decentralisation.

What are the characteristics of today's telecom products? Let us try to indicate some of them.

- Products are based on steadily more sophisticated digital electronics. The dependence of the producers on highly qualified suppliers is thus increasing. However, the extremely high research costs involved in the production of microcircuits and memories is leading to a smaller and smaller number of the suppliers of these elements finding their operation profitable.
- As yet, no limit can be seen to the increases in technical performance that the electronic elements in our systems can handle.
- Integration between various terminal and other user equipments is becoming easier. To an increasing extent, modern systems are technologically "equal" for different types of users.
- The end usage of telecom products is being facilitated. Increasingly easily accessible systems are being supplied, with the aid of state-of-the-art software technology, such as AI and expert systems. The concept of "user-orientation" is heard very frequently.
- The large telecom networks are becoming still larger, and the small still smaller. National networks are being supplemented to an ever-increasing extent by corporate networks. At the same time, links are being installed between offices and workshops, often in the form of off-the-peg local networks.
- A certain incompatibility still exists between network systems from different suppliers. This applies in particular to the products of the "local network" type, and their connection to the larger networks. However, understanding of the importance of adapting to the relevant standards is clearly increasing.

- Today's terminals are becoming increasingly flexible. They can be linked in many ways into different types of network. PCs work alternately as sophisticated terminals, and as local workstations.

- Increasingly sophisticated software functions at the user level are included in the network products, e.g. sophisticated data security, various types of access to data bases etc.

THE PRESENT TELECOM MARKET

The diversification on the product side that we have already mentioned is based on a broadened demand. Increasingly accessible systems have, at the same time, to be increasingly efficient. This often involves walking on a technological tightrope. It is a challenge to the producers; at the same time, however, an increasingly sophisticated technology is available for the solution of these problems.

There seems to be a certain difference in change of demand between local processing capacity and long-distance communications. It may be possibly so that the former increases more rapidly than the latter. The supply will most certainly be capable of catering for both, but a certain superfluity of products may exert itself as regards the opportunities for long-distance communications.

Despite this, numerous new enterprises are currently being established, not least relative to opportunities for long-range communications. This has its particular reasons.

A de-monopolisation of telecommunications has taken place in a large number of telecom-conscious countries during the past five years. Yesterday's strict monopolies have been de-regulated in terms of responsibility. In several cases, the ownership structure has also been exchanged, it has been "privatised". In several countries, for example the UK and Japan, this has proved considerably more profitable than expected, as regards the momentaneous sales results achieved in connection with privatisation. Such re-organisations have introduced new companies in the marketplace, in that the big, original monopolies have been split up. Also, these measures have inspired other companies to reorganise and establish themselves alongside.

A further factor is that technological development precisely during the 1980s has introduced satellite communications as a real market possibility. The increased interest in satellite TV, particularly in Europe, has played a major role here. However, the satellites naturally permit other communications than just TV. In many places, it is expected that data traffic will be able to "fill the gap" when satellites are not fully occupied with TV traffic. The competition vis-à-vis the established monopolies is increasing.

As a result there are now at least six types of actors on the European telecom market:

- Remaining actual monopolies (such as the Swedish Telecommunications Administration)
- The since long established European telecom companies (Ericsson, Philips, Siemens etc.)
- The privatised former monopolies (such as British Telecom)

- New companies and configurations (such as Mercury and Alcatel)
- Extra-European companies that try very forcefully to break into this market (certain major North American and Japanese telecom companies etc.)
- Companies offering radio link and satellite communications (incl. many TV satellite companies).

The products and communications services that these companies offer in aggregate are extremely broad in scale. Given such a development, we can say without any doubt that the competition has toughened lately.

In this toughening competitive climate, the battle for the customers is intensified. In some countries, this finds reflection in the primarily employment-motivated possibility of state subsidies for certain types of deals. Numerous different forms of support are tried. Considerations of prestige are taken into account.

The rules are bent. It is most often, it is said, a question of protecting the active and increasing employment that the telecom industries can create. Contracts with various strings attached are employed, and barter deals are not uncommon.

In our view, this must be regarded as unfortunate. If it is to be possible to develop telecommunications into an expansive and profitable operation, then the European market undoubtedly needs its decks "clear" in the present, early stages. Concealed subsidies and different types of compensation simply hinder the sound development of the market.

The respect accorded to current standards is not, today, complete. An example is provided by the problems sur-

rounding videotex. France, with its successful Télétel-/Minitel systems seems utterly uninterested in adapting to the general European CEPT standard.

Although the work of standardisation is proceeding in most cases with great energy, we still find examples of pure lip services. Fine words are forthcoming on the principles involved, while other types of deals are entered on the side.

THE TELECOM MARKET OF THE FUTURE

The telecom market finds itself at the present moment in a period of intensive development, and is correspondingly difficult to assess.

First of all, it is obvious that the market is becoming more international. The big network systems now have a technical performance that extends in a natural way across the national frontiers. For the small networks, with their linked-in terminal stations, it is fundamentally a question of being able to communicate, from time to time, with parties outside the local environment. And the customers have begun to speak out more loudly.

Integration on the product side can be expected to continue. So far as we know today, the purely technical generality of the microcircuits with which modern telecom systems are built have no limits. It is therefore possible to compete with a steadily increased flexibility and adaptability within the systems, not only with increased efficiency on the part of the communications possibilities.

This integration on the product side is leading to the complete abolition of the old boundaries between the concepts of "telecom systems" and "data systems". Today's telecom products are built up largely of general computer elements.

Less clear, as yet, is the fact that this can have considerable organisational consequences within the companies, above all on the customer side. What were previously "Computer Divisions" and "Technical Liaison Centres" were entirely screened off from the companies Information and Publicity Divisions. The boundaries between these types of corporate unit can now be erased. The joint need of efficient communications is leading to an ever more clear attachment to the "Communications Division". This attachment is becoming at least as interest for marketing and for internal, corporate information. And the ties between communications and production are already obvious, given the increasing automation that is a must in many companies.

The internal communications functions within the company are becoming increasingly central. This can have far-reaching organisational consequences. The "telecom companies" can find reason to try to cooperate with companies in entirely different sectors, for example when it comes just to pure marketing, or mass communications.

In addition, we can say that increasing international contacts are becoming, more and more, an obvious reality to the producing telecom companies. An intensive analysis of the openings for interplay between different market groups is under way. It is sometimes maintained that the market for telecom systems (including computer equipments) is on its way to becoming the largest market in the world.

The need for resources to handle product development is increasing. Research and development are claiming ever increasing shares of the total funds available to the telecom companies. To give one example: in the electro-mechanical age, it cost around \$ 10 million to develop an exchange system. In the analog area, the corresponding figure was around \$ 200 million. Today, the development costs of a digital exchange have risen to some \$ 1 000 million.

In addition, we can expect a continuation of the trend that has already started towards a sale of surplus capacity by companies that do not themselves produce telecom systems. An increasingly intense competition is arising, as more or less occasional surplus capacities are sold off at marginal prices.

Let us consider some current examples of the interplay between telecom companies:

- New Alcatel has been formed by CGE and ITT
- Philips and AT & T have formed a consortium
- Siemens and GTE are discussing collaboration
- Plessey and GEC in the UK have a collaboration, which they are concerned to intensify
- Olivetti and AT & T have a certain collaboration in ownership
- IBM and Rolm have joined forces in regard to telecom product
- Northern Telecom, Motorola and Hewlett & Packard are now linked together
- Ericsson are "pursuing discussions" with European partners
- The big Japanese telecom companies have several collaboration agreements in Europe.

No wonder that increasingly vast forces are coming into play, when business negotiations are started regarding the telecom networks of tomorrow.

There is reason, once again, to emphasise that the market for the ever more sophisticated networks, of the ISDN (Integrated Services Data Network) type, has proved in recent years particularly difficult to assess. A considerable number of sophisticated analyses of development on this market are taking place. At the same time, there is an awareness that this market is particularly fundamental to telecommunications in the 1990s.

MEASURES TO EXPAND THE MARKET IN AN ECONOMICALLY INTEGRATED EUROPE

The market for telcom products shows signs that are promising for the future. European companies should have a good chance of holding their own, on the basis of the leading position they have been able to develop at an early stage.

But the competition is toughening. It is therefore increasingly important that the market be characterised by fair play. The fundamental ethical rules of marketing have to be applied.

What measures, then, are important for expansion of the future European telecom market?

- An understanding for telecom products has to be disseminated among conceivable customers.
- Training in telecom systems needs to be expanded within current educational programmes. (With, for example,

extended further training in the use of PCs, home terminals for education, bank transactions etc.)

- A continued structural rationalisation is expected among the producers.
- The telecom markets must be opened up more to different types of actors. The responsibility here lies with the industry itself and with the governments concerned.
- The work of standardisation on, above all, interfaces between different types of systems has to be intensified. The OSI standard offers here a fundamental basis on which to stand.
- A number of existing barriers created by trade policy must be bridged or eliminated as soon as possible. The international character of telecom products can here prove itself an unconventional aid.
- Collaboration on basic research in relation to new telecom elements can be intensified. The national research programmes that have been defined in recent years in several European countries can be brought into an interplay, as regards the longer-term research.
- Various types of state controls on market development should be decreased. The steered tendering that, to date, has not infrequently been applied on agreements on major telecom networks has to stop. Procurement for the needs of the public sector is particularly important as a setter of principles.
- The structural revision of public producer interests on the telecom market must be intensified. An increasing transition to private ownership seems natural. "Corporatise" the remaining state monopolies in Europe.

- The dissemination of information relating to contacts with extra-European countries must be facilitated. Set up jointly available data bases on the characteristics of new markets.
- Promote activities in line with the important work performed in the EUREKA context. The existing collaboration on various projects within this framework can suitably be expanded.
- Define advanced demonstration projects relating to new tele-systems. Fields of interest in this regard can be, for example:
 - * office systems in cooperation (within local networks)
 - * distributed training systems
 - * integration between payment systems with smartcards (e.g. Bull's CP8 card) and new point-of-sale systems.

Powerful demonstration systems for these and other types of applications can prove important disseminators of information on the opportunities afforded on future markets. Such measures can be taken both on a national basis, and in collaboration between different European partners.