

The Struggle for Global "Telepresence"

A tremendous struggle for television norms and markets now under way will mark the last decade of this century. HDTV is the international acronym for high definition television, which is to provide so-called telepresence. At stake are technology, content and commerce with an estimated market volume of 500 milliard deutsche marks, including the replacement of approximately 600 million television sets in the coming decade. Two blocs wanting to set the norms are confronting one another on a global scale: the European and the Japanese consumer electronics industries. Klaus W. Grewlich of the Bonn Foreign Ministry, Dr. jur. (Freiburg), Dr. sc. oec. (Lausanne), LL. M. (Berkeley), begins his treatment of this contest with the head start of the Japanese, whose offensive has already included the presentation of an HDTV studio system, and then introduces the European concept of an overall system worked out by internationally active German, French and Dutch companies together with a number of other European enterprises and research entities. The Americans were initially more inclined toward the Japanese proposal, but have begun to show increasing interest in the European project. The Europeans hope that the world standard for studio sets, transmission equipment and end units, to be decided in deliberations by the International Telecommunications Union, will be based on the comprehensive EUREKA-HDTV system. The current discussions and negotiations have also drawn attention to a European audiovisual dimension and the possibilities afforded by the European Internal Market in 1992. The Community intends to leave itself open, but not to let itself be flooded from the outside; the Europeans want to be competitive on the world media scene. Relevant strategic considerations and initiatives are already under way. They should be rapidly developed further. — The author expresses his personal opinion.

The electronic media overcome space and time. Global telecommunications and the worldwide audiovisual medium of television create a condition of "simultaneity" and "ubiquitousness". Dream and reality, technology and human consciousness congeal in new systems and relationships.

Television of the future makes so-called "telepresence" possible. As the compact disc (CD) fully engages one's sense of hearing, so would one's power of sight be fully utilised; the picture quality of modern cinematic films (35 mm) would come into the living room.

This television of the future, so-called high definition television (HDTV), is at the centre of a gigantic struggle for norms and markets. It is more than a matter of technology and trade policy. Television is not only an industry — TV

sets and programmes — but also an art form, a modern means of education¹ and influencing public opinion. The current contest involving the development of a technical norm for television of the future therefore has far-reaching political significance. For Europe, it is not just a matter of asserting itself technologically and gaining political influence, but of preserving and enhancing its cultural influence as well.

Audiovisual policy, particularly high definition television, has become one of the more important topics of conversation at high-level political gatherings. The need for a "launch strategy" for HDTV within the framework of a European internal market was stressed at the Franco-German summit on 3/4 November 1988. A common course of action is to be worked out in the international standardisation bodies². Earlier, during the presentation of the Charlemagne Peace Prize on 1 November 1988 in Aachen, the French president had called for European cooperation in the audiovisual field, including HDTV³. The cultural significance of the audiovisual industry, including HDTV and modern satellite technology, was discussed during an informal meeting of the European Community's ministers of culture in Athens on 29 November 1988⁴.

In December 1988 in Rhodes, the European Council pointed out in its conclusions that "it is of the utmost importance to intensify efforts, including cooperation, to increase Europe's capacity in respect of the free exchange of programmes and the promotion of European high definition television as well as with regard to a policy to promote creative work, production and transmission so that the richness of European culture is manifested in all its diversity"⁵. Detailed proposals for an "audiovisual EUREKA project" made by France were not taken up in the European Council's conclusions themselves, but in an appendix, which invests them with considerable political weight nonetheless. The proposals come under two headings: "the popularisation, testing and development of high definition television" and "a European audiovisual zone"⁶.

The aim of the following remarks is:

- firstly, to show the economic and technological significance of HDTV as well as how the technological/economic competition stands, including the state of foreign trade negotiations.
- secondly, to put new television technology in relation to cultural and media issues having a supranational dimension.
- thirdly, to acknowledge the emerging elements of a future "launch strate-

¹ See the speeches given at the presentation of the Charlemagne Peace Prize on 1 November 1988 in Aachen, *Europa-Archiv* (Dokument), 24/1988 (D 692).

² *Bulletin d'Informations, Ambassade de France — Service de Presse et d'Information*, no. 215, 1 November 1988.

³ See footnote 2.

⁴ The basis of the discussion was a paper by EC Commissioner Carlo Ripa di Meana, "A New Dimension for European Policy in the Audiovisual Field" which included both the EC Commission report on high definition television (Doc. Com. (1987) 295 final of 13 June 1987) and the "Strategy Paper" (proposal for a decision of the Council on high definition television, Doc. Com. (1988) 659 final of 18 November 1988).

⁵ *Europa-Archiv*, 24/1988 (D 692).

⁶ See Appendix II to the conclusions of the chairmanship of the European Council in Rhodes (footnote 6).

gy for HDTV" as part of a European policy on technology, the internal market and culture as well as foreign trade diplomacy.

These are the issues involved in the struggle for global telepresence.

1. New Technology — "Whoever has the Norm has the Markets" — the State of Competition and Negotiations

1. The basic inventions in the field of television technology — for the production, display and transmission of television images — are about 100 years old: Paul Nipkow invented lineal scanning in 1884, Heinrich Hertz discovered electromagnetic waves in 1887 and Ferdinand Braun developed the picture tube in 1897. The first regular television programme service was started in Berlin on 22 March 1935. At that time the Old World led in technology. That changed after World War II. The introduction of colour television in Europe came considerably later than in the USA and Japan. The Japanese then used their head start to take over the world market: The American electronic entertainment industry, once extremely strong, has virtually disappeared due to Japanese pressure. Today global competition in the consumer electronics industry is dominated by two players: Europe and Japan.

In this situation the qualitative leap toward "telepresence" in television technology and consumer electronics that will occur during the last decade of this century takes on extraordinary significance in terms of economic strategy. Replacing the current television system with television of the future opens up a market with an estimated value of 500 milliard deutsche marks: 600 million sets to replace in the 90s. The fate of entire branches of industry will be decided by success or failure in this new market⁷.

What is involved in HDTV? To achieve considerably greater resolution, television sets of the future will have to be able to double the number of lines as well as the horizontal resolution: The number of individual picture elements would then quadruple from today's 180,000 to 700,000. That would make it possible to eliminate much of the interference in the pictures of conventional television as well as increase the screen format from the current 4:3 to 16:9 — i. e. to wide screen. High-resolution screens with diagonals of 1.10 m and more — instead of 70 cm as is now the case — could then be built. In addition, sound quality would be raised to CD level. Television pictures could be furnished with several sound channels, which would allow dubbed multilingual broadcasts — of especial interest in Europe.

2. The Japanese, with Sony Corporation as the leader of a consortium of several Japanese companies operating worldwide as well as the public television network NHK, have a preliminary HDTV system called "HI-Vision" that is to be gradually introduced in Japan beginning in 1990. For the Olympic Games in Seoul prototypes of HI-Vision sets were put up at 50 public places in

⁷ Bundesministerium für Forschung und Technologie: "Hochauflösendes Fernsehen — High Definition Television"; press release of 2 December 1988, 45/88; also see EC Commission: "Report on High Definition Television", Doc. Com. (84) 299 final of 13 July 1984.

Japan. 25 November (11/25) was proclaimed "HI-Vision Day"; that date was chosen because the number of lines in Japanese high definition television is 1125.

In accordance with the principle "Whoever has the norm has the market", Japan sought approval of its HDTV standard in the Comité Consultatif International de Radiodiffusion (CCIR) of the International Telecommunications Union. The Japanese figure they have particularly good chances in the American market because of the 60 hertz field common to the two countries; in contrast, electric current frequency (and hence picture frequency) in Europe and in most other countries is 50 hertz.

Since the American programming industry was convinced at first that the Japanese HDTV norm would be adopted, it initially favoured the Japanese norm and brought its influence to bear on the American administration accordingly.

3. In early 1986 during the decisive session of the CCIR in Dubrovnik, the Europeans made a proposal counter to the joint Japanese-American concept. The fact that the majority of European governments rejected Japanese proposals for a HDTV studio norm should not be misunderstood. Europe did not simply balk, but took a constructive position. The Japanese proposals, which were aimed solely at HDTV studios, were incompatible with European views because the Europeans saw the task of standardisation more broadly: In the European view, the standardisation of HDTV studios should form the very beginning take the specific conditions of HDTV transmission in the various regions of the world into account. The Europeans advocated evolutionary development based on the D-2-MAC standard⁸. That means that television sets retain so-called "backward compatibility", i. e. a traditional television set can, with the addition of a modem, also receive D-2-MAC television, and the D-2-MAC television set of the future can also receive HD-MAC or HDTV high-quality television — with reduced quality, however — much like black-and-white sets can also receive colour television. Those who buy a new HDTV set in the future — it has yet to be determined when to start commercial mass production, but it is likely to be in the second half of the 90s — will of course be fully able to experience the quality of HDTV. In contrast to the Japanese proposal then, the consumer would not be faced with having to discard his present TV set.

The Europeans took advantage of the 2 1/2-year hiatus following the CCIR session in Dubrovnik: Within the framework of a EUREKA project, Philips (Netherlands), Thompson (France) and Bosch (Federal Republic of Germany) as well as 30 other industrial concerns, research institutes and radio and television stations from the Federal Republic of Germany, France, Great Britain, Belgium, Italy, Sweden, Switzerland and Finland have succeeded in achieving important technical breakthroughs⁹.

⁸ MAC is an acronym for "multiplexed analogue component". This standard eliminates the difference between PAL and SECAM.

⁹ The total extent of the EUREKA-HDTV project amounts to approximately 500 million deutsche marks, about half of which is publicly financed. The German share of the public sponsorship is approximately 40 million deutsche marks. EUREKA is following an analogous concept. A parallel EC research programme is RACE, which is aimed at digital concepts of the future.

In September 1988 at the International Broadcasting Convention at the British seaside resort Brighton, the Europeans were able to present a total, functioning HDTV system for the first time. It comprises studio sets, transmission facilities and end units (monitors, projectors, video disc) that were developed on the basis of the European proposal for a world HDTV studio standard — defined as a 50 hertz picture frequency, 1,250 lines, progressive line sequence 1:1 — and transmission and end unit standards derived from it.

4. The international struggle for HDTV was not decided by the success in Brighton, however: The devices shown by the Europeans there are essentially models that were able to demonstrate the overall system, but which are not yet ready for production (components, miniaturisation).

Nevertheless, the European successes were not without impact in the United States. There are now signs of a more flexible American attitude toward the future HDTV norm. The official American position — as indicated by its attitude in the International Telecommunications Union — still favours the Japanese HDTV production standard; but in the meantime the Federal Communications Commission (FCC) has set the stage for the US to "go its own way". That has improved the chances for possible European-American cooperation on HDTV, especially considering the fact that the restructuring of European consumer electronics has led to the formation of European industrial groups operating worldwide that have succeeded in gaining a foothold in the US market and taking over a significant share of consumer electronics. In addition, the American film industry is now examining European HDTV concepts with an open mind.

In view of the Japanese HDTV technology offensive under way, the strategic programme in Europe, and also the Soviet Union's activities in the HDTV field as well as concern in parts of the Third World about becoming the losers in an "information revolution", there are those who say the struggle for HDTV must now be analysed from the perspective of a "Kissinger diplomatic dimension" because of a looming "global electronic trade battle"¹⁰ that can be averted at the international level by concerted action. Major representatives of the US information technology industry propose European-American cooperation (exchange of system knowledge for components/microelectronics) in the struggle for HDTV. On the other hand, the US Department of Defence (DOD) is trying to contribute to an independent American initiative: Millions of dollars are to be spent toward the development of new viewing screens — initially for military purposes — that can later enable American industry to get into the consumer electronics race with the support of semiconductor and electronics companies¹¹.

Considering HDTV's great political as well as economic significance, it is important to prevent a situation in which not only consumer electronics con-

¹⁰ Jack Robertson in *Electronic News*, 1 August 1988, p. 10.

¹¹ See the article by Evelyn Richardt: "Pentagon Seeks to Revive TV Industry" in the *International Herald Tribune*, 20 December 1988.

cerns but also the countries themselves are pitted against one another, which could result in economic/technological power struggles that impair market mechanisms and in extreme cases even impinge on the quality of international relations.

The global struggle for the HDTV norm should not degenerate into a "norm war". The goal of supranational cooperation¹² would be an agreement on "world technical standards" for "telepresence". Europe can now make the decisive contribution to this solution.

II. An Open European Audiovisual Dimension

1. Television programmes are not typical goods or services. They are intellectual wares that influence the way people think. World wide "telepresence" is leading to the creation of a global media culture. The question is, what role will Europe play in the world media culture? Will it be a Europe that reveals, preserves and enhances its identity and disseminates its ideas and values in the world? Will Europe, while retaining its cosmopolitanism, succeed in accelerating the consciousness of a European identity and in making it a motor of European integration?

In response to this question the French president — referring to the cinema and television — said the following: "Of course one must also be open to the pictures from elsewhere . . ., but one ought not passively let oneself be flooded by them; then one would renounce one's own creativity, one's own personality. Where are the structures of the mind formed, the imagination, the part for dreams and language, if not in the place where the culture of those who have lived on "our soil" exists, on this continent, which has even shaped other continents? Should we be the first to voluntarily renounce this ability to exchange, to reflect?" And he added: "We must not miss our rendezvous with modern times . . . We have the technology to overcome language barriers by broadcasting a programme in several languages simultaneously. It is also up to us to agree on a European norm with which we can win the contest for a worldwide standard for high definition television."¹³ Shortly afterwards at an event commemorating the 100th birthday of Jean Monnet, the West German chancellor said, "No one will think seriously of levelling the differences between the peoples, especially of wiping out their cultural identity, as it were. It is precisely the fertile tension between unity and lively diversity of cultural legacies that is Europe's strength and the reason for its fascination. It is necessary, therefore, to maintain and cultivate this diversity. But it is just as necessary — and both can indeed be compatible — for the countries of Europe to gradually relinquish parts of their sovereignty to the Community."¹⁴

¹² Klaus W. Gevlich, "Politik-Szenarien USA-Japan-Europa" in *Aussenpolitik*, 3/68, pp. 217-236.

¹³ Speech by French President François Mitterrand at the presentation of the Charlemagne Prize on 1 November 1988 in Aachen, excerpted in *Europe-Asien* (Dokument), 24/1989, (D 682).

¹⁴ Speech by Chancellor Kohl at a meeting with the Chancellor of the European Movement in commemoration of the 100th birthday of Jean Monnet on 7 November 1988 in Bonn, in *Europa-Archiv*, 24/1988 (Dokument) D 635 and 636.

2. The EC Commission has made an attempt to bring about common solutions in Europe's audiovisual sphere. In May 1984 it presented a "green book" titled "Television Without Borders" in which it made two proposals: first, a consistent application of the EEC Treaty in cases in which a member country of the Community discriminates against the broadcasts of other member countries; and second, conformity among certain national regulations governing advertising, the protection of children and young people, and copyright, which hinder supranational traffic in television programmes¹⁵.

In October 1985 the European Parliament to a large extent approved the "green book" and called for an EC guideline making broadcasting law uniform. In early 1986, two years after the "green book", the EC Commission made a "guideline proposal" aimed at creating a comprehensive internal broadcasting market by 1992 at the latest¹⁶.

At the same time, the 23 countries of the Council of Europe seek to facilitate the supranational transmission and propagation of television programmes¹⁷.

In contrast to the draft Convention of the Council of Europe the proposed EC guideline provided for the mandatory preferential distribution of programmes made in Europe (initially 30 percent, later 60 percent). The point was to create the internal European market for the benefit of European producers, those active in the cultural sector and their works. That is justifiable, so the argument went, because cultural services are involved. Such reasonable protection cannot be stamped "protectionism". It is a matter of the difficult position of European telefilms between art and commerce. Proclamations are not enough, the argumentation went on. Clear regulations are what is needed. They would be in the economic and cultural interest of both the European film industry and the films' creators. The proposed quota for independent European producers of programmes (initially 5 percent, later 10 percent) was also said to be an attempt to contain the great economic and cultural power of the distributors — the broadcasting concerns, in other words — in film production¹⁸.

On what assumptions is this controversial EC guideline based? The point is basically that there will be an estimated 100,000 hours of television programming in the European market in 1992, that — if the idea of European cultural identity is to be taken seriously — European programmes ought to have an appropriate share of this market, and most importantly that the exchange of films and television programmes in Europe must be considerably improved. Of 100 hours of programming bought in Europe today only 8 come from another

European country, and the Europeans as a whole produce just 15 percent of media exports worldwide. As estimated 40 percent of US films and television programmes put on the world market are purchased by Europe.

American motion pictures are extremely well represented in all world markets. The number of films produced in Europe is quite similar, but the problem lies in the distribution. What good is it that a lot of films are produced in Europe if they are not shown? The share of American motion pictures in the European market ranges from 45.5 percent in France to 87 percent in the United Kingdom (49 percent in Italy, 60 percent in Spain, 63 percent in the Federal Republic of Germany). In the United States, on the other hand, 97 percent of the films shown are produced domestically. — The production of telefilms in the United States is considerably greater than in Europe; the films are popular and capture the European and other markets after they have already paid for themselves in the domestic American market. The principle of "economies of scale", i. e. greater quantities or greater use allow a lower unit price and therefore give the producer a competitive edge, is as valid in the audiovisual sphere as it is elsewhere.

As is the case in technology policy, however, the question arises whether protectionism is the best means to confront a strong competitor, or whether it might not be better and more promising to improve one's own competitiveness. In order to do that, the patchwork of different technical norms and different national regulations, which hampers the free dissemination of television shows in Europe, would first have to be replaced by a real common market.

Programming industries and television stations capable of competing both in the internal European market and in the world market must spring up in Europe. There are 130 million television sets in Europe — one and a half times more than in the United States. This advantage should be seized. The internal European market can offer advertising revenues to finance private television stations. Only by utilising the continental dimension of the European market can a broad array of programme productions be supported, and only in this dimension can the economic base be established from which European programming industries and television stations can confidently enter the fray in the world market¹⁹. These considerations should not be misunderstood. Recognising the need to act continentally and taking advantage of the internal market does not mean that the market will fortify itself against the outside world. As the world's "number one trade power", Europe can ill afford protectionism and new trade conflicts.

3. There are a number of projects designed to enhance the competitiveness of Europe's audiovisual industry:

— The Media Programme, a pilot project of the EC Commission that was launched at the end of November 1988 for a two-year run and has an annual

¹⁵ Klaus W. Grewlich: "Informationstechnologien — Europas Antwort", *Aussehenpolitik*, 2/85, pp. 127-135.

¹⁵ EC Commission: "Television Without Borders", green book (Comin (84) 109).
¹⁶ EC Commission: "The Community's Audiovisual Policy — Proposal for a Guideline by the Council on Broadcasting", *EC Bulletin*, 5/86.

¹⁷ Recommendations by the Council of Europe: Recommendations no. R (84) 3 (television advertising); no. (82) 2 (copyright in audiovisual media); no. (84) 3 (promotion of European productions as well as documents CDDM 18/72 ADI).
¹⁸ J. B. J. Jans: "Projet de Convention sur la Télévision Transfrontalière CM (88) 218 of 16 December 1988."
¹⁹ J. W. Schaefer: "Fernsehen ohne Grenzen: Zur Effektivität und zum Verhältnis von EG-Richtlinie und Europarat-Konvention", unpublished, 1988.

budget of 5.5 million ECU, is aimed at promoting the distribution of low-budget films, offering producers further training, promoting authors, intensifying and promoting the production of HDTV programmes as well as improving the quality of entertainment and advertising films²⁰.

— "Eurimages" is a fund set up by the European Council to promote the production and distribution of European films. The fund went into effect at the end of 1988; so far 12 European countries have become members. Along with France and Italy, the Federal Republic of Germany is one of Eurimages' most important supporters.

To put the endowment of this fund into the proper perspective, it must be realised, however, that even an average film necessitates expenditures showing just how modest the endowment of both Eurimages and the Media Programme is.²¹

But it should not be up to the governments or the EC Commission to take the lead in increasing the competitiveness of European audiovisual industries. Europe's private media concerns and public television stations — in part legally independent — must take the initiative. It is for them to organise cooperation, i. e. to bring about well-financed supranational amalgamations and groups able to compete with the American media giants not only in the internal market but in the world market as well: The exchange of programmes, joint production, joint transmission and joint distribution in world markets can be the result of that sort of large-scale European cooperation. True competition would be possible if European multimedia groups produced for both the internal and the world market from the very beginning, and economic strength could make the propagation of European creativity possible.

It would be the responsibility of the governments and the European institutions to create the legal framework for an open TV-dimension in Europe. Important preliminary work has already been done²¹.

4. The audiovisual sphere in particular should not be confined to the area comprising the European Community. Salzburg, for example, lies outside this area but is a center of European culture. The audiovisual zone, therefore, must not only include all of Western Europe, but must stretch into Eastern Europe as well. The consciousness of European identity is especially strong in the countries of Eastern Europe. Television must help to overcome the division of Europe.

No obstacles to cultural exchange should be created by measures aimed at increasing competitiveness in the world market or by new technological developments. The production standard for high definition television should be

²⁰ The Media Programme emerged from the "Action Programme for the Promotion of the Audiovisual Production Industries in Europe", which the Commission adopted on 26 April 1986 (Comm. (86) 295) and presented on 13 June 1986 in Amsterdam in connection with an informal gathering of the ministers of culture.

²¹ For example, the decision to draw up guidelines for a European media policy based on the green book of the Commission of European Communities on establishing a common market for broadcasting, particularly via satellite and cable (ABl. C 288 of 11 November 1985).

effective worldwide and enable the supranational exchange of programmes. From the standpoint of programmes, a single standard arrived at by compromise is fundamentally better than several standards that from a purely technical point of view may be qualitatively superior. Even if different transmission standards for HDTV are established, one should not immediately accept different production standards for programmes. It is therefore not opportune to deal with the question of double production standards.

HDTV offers the rare opportunity to establish a uniform standard worldwide in a new sector of television production, which up to now has not been possible. The broadcasting companies and the industry in the Federal Republic of Germany agree that the establishment of a uniform worldwide HDTV production standard has priority²².

The HDTV standard proposed by the Europeans (a result of the EUREKA-HDTV project) has the quality of a globally applicable and compatible "parent standard".

Now, following the success in Brighton, it is important that developments in Europe be intensified toward the double goal of establishing a "world norm" for HDTV and creating "an open European audiovisual dimension".

III. HDTV Strategy

1. So far, work on HDTV in Europe has concentrated on research and development as well as on determining norms. But it is commercialization, and not creative research, that is decisive. A promising strategy for the introduction of HDTV services must now be developed. Otherwise the Europeans run the risk of lulling themselves into a false sense of security with their high definition television — which is indeed technologically superior — while the Japanese are already working on the first HDTV broadcasts and then supply the world with Japanese sets. The big advantage of the Japanese is that their equipment can already be used in the studio, while the Europeans can only demonstrate a "system", however brilliant it may be; hardware and services (software, programme) of the European concept must now be made available as quickly as possible.

Following the technical advances by EUREKA-HDTV, a threatening situation developed in which one group, wanting to be sure of its planning, waited for the next: The broadcasting companies were only seriously willing to start HDTV programme production when channels to be distributed by the telecommunications authorities had been made available. The telecommunications authorities, on the other hand, waited for the manufacturers of the end units as well as for the willingness of the television stations to produce. And finally, the manufacturers of the end units let it be known that they would not fully develop the components — due to the technology and investment neces-

²² Cf. Ludwig Strenger: "HDTV — Die europäische Alternative", Funkchau, 16/1986, pp. 26-28.

sary a very costly affair — until they knew that HDTV, if only in pilot projects initially, would soon be carried in Europe.

Two political initiatives were begun to overcome this condition of mutual paralysis.

- The EC Commission's proposals for a launch strategy for HDTV²³.
- The French proposals — dealt with by the European Council in Rhodes — for an "audiovisual EUREKA project". The proposals concern both the European audiovisual zone and high definition television²⁴.

- (i) The EC Commission's HDTV concept:
 - European industry should develop the necessary technologies, components and equipment in time for the gradual introduction of HDTV services in the 90s.
 - The European HDTV proposal should be accepted as a uniform world-wide norm for the manufacture and exchange of HDTV programme material.
 - The demonstration and application of the norm should occur swiftly.

(ii) The French proposals for an "audiovisual EUREKA project":

- The European norm (world norm) and the European system for high definition television, which was successfully demonstrated on 23 September 1988 in Brighton, form the basis for the future of the audiovisual industry in Europe. The European Community must therefore proceed efficiently and resolutely in promoting this norm and this system in the other European countries, particularly in the countries of Eastern Europe.

The Commission's initiative aimed at creating a "European economic union of interests" is supported. The initiative is primarily concerned with providing the technical means to demonstrate and promote the European norms.

Plans are being made to demonstrate European HDTV at the next session of the European Council, in June 1989, as well as during the next world economic summit meeting.

Extraordinary cultural or sporting events (such as the 1992 Olympic Games) are to be recorded with equipment operating according to the European norm for digital television; these events are to then provide the opportunity to demonstrate high definition television.

- Broadcasting stations, those involved in the cultural sector and advertising experts are to gather in September 1989 in France for a "Conference on European Audiovisual Media". This course of action, which is aimed at creating a European audiovisual dimension, is to be undertaken in the same spirit as the start of the technological EUREKA programme in 1985. Each member

²³ EC Commission: "Proposal for a Council Decision on High Definition Television"; Doc. Com. (88) 459; Council document 10037/88.
²⁴ Audiovisual EUREKA project, Appendix 2 to the conclusions of the chairmanship conference of the EC heads of state and government on 2/3 December 1988 in Rhodes (European Council), *Bulletin des Prose- et Informations ministérielles* Bandenrijwing, Nr. 170/p. 1509 of 6 December 1988; also see the declaration of principle by EC Commission President Jacques Delors before the European Parliament, 17 January 1989.

country of the EC is to name a coordinator for the audiovisual EUREKA programme.

Shooting for a big European cinematographic work is to begin in 1989. The initiatives of the EC Commission (media plan) are to be continued and supported. And the production and exchange of documentary films, of television broadcasts for schools and universities (e.g. the networking of top universities) and of news shows is to be expanded.

- 2. The proposals, named above, on a European audiovisual zone and HDTV made by the EC Commission and France are currently being examined in the Community's member countries from the standpoint of European and foreign policy as well as economic, industrial and technology policy.

Here are just three groups of considerations from the standpoint of technology and industrial policy, cultural and media policy, and finally, foreign trade diplomacy:

- (i) From the standpoint of *European technology and industrial policy*, it is of cardinal significance that the technological results of the EUREKA-HDTV project are commercially utilised as soon as possible. That means rapid progress in preparing a launch strategy must be made now: The HDTV demonstrations are planned for 1992; the mass introduction of HDTV sets on the basis of HD-MAC transmission is not expected until later in the 90s, however. But by then the question of the relation between satellite and glass fibre in the distribution of HDTV programmes must be constructively solved. Wide-band distribution technology (glass fibre) could make an important contribution to the commercial introduction of full HDTV quality. HDTV would then be a "draught horse" for glass fibre cabling. Such a strategy could also give a strong impetus to the development of highly integrated chips, which are a crucial component in the HDTV system of the future. Aside from initial public investment, there should also be room enough for private initiative in the introduction of wide-band cabling. Why shouldn't financially strong television distributors have the opportunity to take part in setting up a broad band glass fibre distribution infrastructure at the appropriate time, particularly when there is a shortage in satellite capacity due to more intensive use by mobile radio stations?

- (ii) From the standpoint of *cultural and media policy*, there would be the incentive to create financially strong media groups from the area of programming. Financially strong units could namely create conditions enabling European programmes to be produced for both the internal market and the world market *from the very beginning*, as well as enabling European talents to be recognised. Such large media groups would, of course, be subject to European cartel law, which would check the danger that market power is misused. If the Europeans had media giants that could acquit themselves well in competition with their counterparts from the United States, all forms of protectionism would be unnecessary and replaced by an open give-and-take. Protectionism

and state control would not only be unacceptable as far as trade policy is concerned, but would run counter — at least in the Federal Republic of Germany — to constitutionally guaranteed freedom of information and programming autonomy.

That does not mean that promising beginnings such as Eurimages and the Media Programme should not be continued; it would even be a good idea to intensify them as a kind of "precompetitive development".

EUREKA is the right construction for the creation of an open audiovisual dimension because the "variable geometry" allows a flexible approach led by private initiative as well as the participation of partners from outside the Community²⁵. The Federal Republic of Germany, for example, is interested in having countries belonging to the German language and cultural sphere included in the "audiovisual EUREKA", which ought to extend into Eastern Europe.

(iii) As far as *foreign trade diplomacy* is concerned, it is important that Europe concentrate its strength in order to push through a world HDTV norm. A uniform worldwide HDTV production standard has priority. It is therefore important that the foreign trade consultations on HDTV under way between Europe and Japan and the USA — with the participation of the affected industries — be continued and intensified. The possibility of cooperation with the United States should be seized. There are signs in Brussels that consultations with the Soviet Union are being considered; preliminary talks with experts as well as representatives of the broadcasting stations have already taken place. In any event, it will be important to develop foreign trade strategies that garner the most support possible for the Europeans' "evolutionary and compatible solution" in the coming, decisive sessions of the International Telecommunications Union (CCIR), during which final negotiations on the HDTV world standard of the future will be held. The Europeans' evolutionary proposal is in many cases of special interest to Third World countries.

Cooperative solutions should take the place of a potentially conflict-laden struggle for global "telepresence". Such a development would correspond to the universal character of modern telecommunications and promote supra-national audiovisual exchanges.

²⁵ Klaus W. Greiflich, "EUREKA — how to do it?" *Aussenpolitik* 1/76, pp. 23-24; also see EC Commission: "Intensifying Cooperation between EUREKA and the Community", Doc. Com. (48) 291 of 24 June 1981.

George Turner

The Internal European Market and Its Impact on Science and Research

The dynamism of industry depends on the quality and quantity of science, on the universities' turning out top executives, and on research and development. By 1992 the Internal European Market is to become reality. With the Single European Act the roles of education, science and research were dealt with for the first time; the Treaties of Rome had made no reference to them. The ministers-president of the states of the Federal Republic of Germany, however, citing federalism, have sought constraints on the European Community in the cultural and educational sphere. Professor Dr. George Turner, senator for science and research in West Berlin and previously president of both the University of Hohenheim and the West German Rectors Conference, advocates cooperation between European science and industry in the area of research and development. Actually, there is already a variety of programmes, initiatives and measures even though the EC still has no broad jurisdiction of education. For the past two years the ERASMUS programme has enhanced student mobility, and guidelines are being worked out toward the mutual recognition of university diplomas, which would afford access to occupations in all member countries. It is significant that the aim is not conformity among the various national educational systems, but the acknowledgement of quality. To promote cooperation between research and industry there is COMETT, already under way and designed to bring universities and businesses together EC-wide, and there is a research and development umbrella programme with numerous individual programmes in various areas offering universities a host of opportunities to participate. It is clear that the fact of European unity compels cooperation, and the dynamism of science and industry will demand concessions of the politicians.

1. Some Remarks on "Europe"

Everyone is talking about Europe. Some are pushing forward, some are pulling back. What form it should take is more unclear than it is a matter of dispute. The united states of Europe, Europe of fatherlands, Europe of citizens, Europe of capital, Europe of labour, or something else? Europe is being talked about, but the continent of that name is not meant. Efforts to create a European Community, whatever form it is to take, proceed from the division of Europe and are confined to a rump Europe whose frontier runs through Germany.

Whether one accepts the division or expects its rescission at some future date is a question that is complexly linked to Germany's chances of overcoming its division. When it is talked about at all, then on the basis of wishful thinking. The European Community will gather so much momentum, the line of thought goes, that at some time or other a connection of some kind or other with the other