

Media with a purpose

Public Service Broadcasting in the digital era

The Report of the

**Digital Strategy Group
of the European Broadcasting Union**

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Contents

Preface	3
Chapter 1: New maps of media space	6
1.1 The future of the electronic media.....	6
Three stages in the evolution of the pattern of media consumption.....	7
Changes in the media value chain	10
1.2. The challenge – and fundamental principles – for public service broadcasting in the new environment	11
Chapter 2: Managing digital evolution	14
2.1 Introduction	14
2.2 Programming policies for public service broadcasters in the multimedia environment.....	15
2.4 The migration of programme production equipment and infrastructure from analogue to digital	21
2.5 Securing universal coverage with new delivery methods in the digital environment.....	25
2.6 Different ways of organising public service broadcasters in the multimedia- and digital future	28
2.7 The future of radio services in the digital multimedia environment	32
2.8 Key recommendations to managing the digital evolution of public broadcasting companies.....	35
Chapter 3: The mission and financing of public service broadcasting in the digital environment	37
Introduction	37
3.1 The obligations of Public Service Broadcasting	38
Serving social, political and cultural citizenship	38
Universality of Content	39
Editorial independence	41
High Quality	41
Accountability	42
3.2 Regulating Public Service Broadcasting in the Digital Era	42
3.3 Financing Public Service Broadcasting.....	46
The future of public funding for public service broadcasting	48
Advertising, sponsoring, etc.....	49
Individual user oriented payment	50
The future funding of public service broadcasting	50
Appendix 1 Members of the EBU Digital Strategy Group	
Appendix 2 Background papers on issues discussed in the report	
Appendix 3 Current EBU activities which relate to the work of the Digital Strategy Group	

The concept of 'public service broadcaster' is open to different interpretations. Indeed, part of the purpose of this report is to analyse what it will imply in the years ahead. But it may be useful to explain at the start that the term does not apply solely to broadcasters who are funded from public funds. In this report, we use 'Public Service Broadcasters' to mean broadcasters who have a public service mission as part of their legal framework. This includes broadcasters who are wholly or partly funded by licence fees, grants, or advertising revenue.

Preface

The world of broadcasting is undergoing fundamental changes, precipitated by the introduction of new programme production and broadcasting technology (the ‘digital revolution’). Electronic media has also become an international industry, no longer operating solely within national boundaries, and no longer regulated solely by national authorities.

On the one hand, this opens up new opportunities. Europeans can enjoy a vast range of programming, designed for both a national and an international audience. The internationalisation of the media and the new digital technology can, at its best, support global culture and international understanding, and bring more choice to the individual.

On the other hand, national public service broadcasters who are there to sustain cultural diversity, national citizenship, language, culture and identity, now share the media landscape with international media-corporations – often combining telecommunications, IT and media operations – and who know little of national cultures. Their objective, entirely reasonably, is to create shareholder value for their owners. Much of the world is concerned about the possible negative effects of ‘globalisation’ on the quality of life, and broadcasting is not immune from these concerns.

These developments are a formidable challenge for the community of European public service broadcasters. For most of their 50-75 years of existence, many have been near ‘monopolies’ or ‘duopolies’ within national boundaries, regulated and protected by national legislation. Their production and distribution of programmes has been carried out in a well-functioning analogue technical environment, undisturbed by wholly commercial companies and ‘gatekeepers’ controlling access to the home with proprietary technology.

The technological developments and the internationalisation of the media industry forces public broadcasters to re-think their programme-policies, their technical set-ups, their ways of operating, their organisational structures, and their existence as institutions.

This was the background for the decision of the European Broadcasting Union (EBU) in 1999 to set up *the Digital Strategy Group (DSG)*. In spite of the technical name, the task of the group was much broader. In summary, the DSG should undertake the following:

- *Investigate the need for shared EBU/Member perspectives on the digital revolution - and international media – developments, and what they may bring, in terms of opportunities, to national public service broadcasters.*
- *Identify areas of concern in the field of new media, and ensure that they are appropriately addressed.*
- *Identify issues requiring immediate attention, such as navigation, gateways and storage.*

The results of the work of the Digital Strategy Group and its recommendations are presented in this report. The emphasis of the work has been on identifying the challenges and opportunities for Members of the EBU – the public service broadcasters. This prime objective has been the focus of the report. The group has, during the two years of work, also been consulted on a number of specific questions concerning the way EBU should meet the ‘digital challenge’.

Many of the perspectives, guidelines and recommendations of the report will form the basis of EBU activities and initiatives in the coming years.

Reading the report, and evaluating its analysis and recommendations, we should bear in mind that European public service broadcasters, although sharing the same main objectives and working along the same principal lines, represents a diverse group of broadcasting organisations. Some of them are among the large media companies operating on an international scale and with a strong position in their national markets, while others are small players in the media industry. Some EBU Members – large as well as small – are relatively well-financed and operate technically up-to-date production facilities, while others lack financial and technical resources.

In most European countries there is a political and popular understanding of the value of public service broadcasting, and of the need for editorial and economical independence from both political and commercial interests. But, there are also examples where the degree of independence from political influence is weaker.

Against this background, it has not been the objective of the Digital Strategy Group to present a detailed ‘fit-all’ analysis and precise description of the route to follow for each and every one of the 70 Members of the European Broadcasting Union. Rather, the group has tried to draw attention to a number of likely developments in the broadcasting environment relevant for all broadcasters. Based on the analysis of these developments, the group suggests a number of strategies – or elements of strategies – which will be taken in account by EBU Members addressing the own digital challenges.

Making realistic strategic forecasts in a ‘chaotic’ media environment is not easily done – as the developments in the first years of this millennium clearly shows. We probably have a tendency to underestimate the radicalism of the changes, and in parallel a tendency to overestimate the speed with which these changes will come. But as broadcasters we do know that our whole environment will eventually be digital, and that the question is not *if* the digital evolution will happen, but *how* and *when* it will take place.

The analysis and recommendations of the report must be read with the above in mind. They are not the final words on the subject. The reader is recommended to visit the EBU web site (<http://www.ebu.ch/services/multimedia/organisation>) for updated information and analysis. On the web site, you will also find background papers to several of the sections in this report.

The Digital Strategy Group has, on several occasions, reported its work to the Administrative Council and the General Assembly of EBU, and received important suggestions and perspectives for its further work. The analysis and recommendations of this report were finally presented to, and approved by, the EBU General Assembly in Naples in July 2002.

The DSG group has drawn heavily on advice from many informed experts from Members of the EBU and the staff of the permanent services of the EBU in Geneva. We thank every one for their help. Special thanks must be given to the Secretary of the group David Wood, and to Lina Vanberghem, from the EBU in Geneva.

A list of the members of the group can be found in the Appendix of the report.

The multimedia environment of the future will challenge us all. We, the public service broadcasters, need to continue to study, adapt to, and respond to, the evolving environment. Our organisations must expect change, and be ready to adapt to it. They must submit themselves to, but also shape, the future of broadcasting in Europe.

Public service broadcasters are among the guardians of Europe's human values, its traditions and its heritage of pluralistic democracies, for coming generations. We must not fail them.

On behalf of the Digital Strategy Group

Christian S. Nissen
Chairman

Chapter 1

New maps of media space

1.1 The future of the electronic media

In the media as in other areas of human endeavour, there is no unique and inevitable future which can be prescribed now. The future will be determined by turns of events which are complex and interrelated, and which essentially stem from our own actions. The future is not in our stars, but in ourselves, and in things we have yet to do.

We can at a given time identify trends and tendencies, but we need to see these as a snapshot of the most probable future. We need to constantly review the evidence, and look for new turns of events that will have a major impact. Any reports of this kind need to be the subject of regular review.

The process of analysing the future thus has to be a cyclic, but cycles must begin somewhere. This is the purpose of this report, which describes a vision of the world in Summer 2002, and the period beforehand. At intervals, the EBU hopes to review this vision, and information on this will be available on the EBU web site www.ebu.ch.

The media environment is changing dramatically. In order to understand the evolving situation, and the way the public service broadcasters need to respond to it, we can identify changes in *four interconnected areas*: technology, market environment, consumer behaviour, and the regulatory environment.

Technology changes begin with the growing use of digital technology. Digital technology makes possible *new ways to produce and deliver media*, and will bring the wider use of ever more sophisticated multimedia, interactivity, the option of multichannel services, on-demand services, and the availability of different picture and sound quality options.

In fact, there are two consecutive technological revolutions underway. The first is the '*analogue-to-digital*' revolution. The second is the '*digital-to-software*' (or IT) revolution. It is the combination of these two that is the enabling mechanism for many critical changes in the media environment.

Market environment changes include the globalisation (or internationalisation) of media interests. Market economics almost inevitably lead organisations to grow and to seek ever-larger markets. Profit orientated media companies will inevitably enlarge their interests. We can expect the future to bring more media organisations delivering more media, in one way or another. In addition, progressively more programme content will be made for *multiple delivery means*, and individual companies in the industry will serve an ever wider range of delivery means.

One important specific development is that rights-owners, upon whom broadcasters traditionally depend for recorded music, sports, or films, may well have the option of using new digital outlets directly themselves. This may lead to such programme content either not being available at all for broadcasters, or only in limited form, or only for secondary/tertiary use. However, the cost and availability of rights is not only defined by what is technically possible, but also by market demand and supply conditions. Thus, we enter a world where there is the potential for rights scarcity, but not the certainty.

We can also note that, as *gatekeepers*, international media corporations (whose interests range across media and technologies) will be able to control complete media chains, from programme talent and rights, to the viewer and listener's equipment at home. This means they will be in complete command of new sources of media revenue, and be some of the major influences on society.

Consumer behaviour changes include the propensity for media viewing and listening to be less of a collective experience and more of an *individual experience*. This individualisation of the media experience from the consumer side is fuelled by the technological possibilities for providing more personalised services.

In addition, at least in some countries, there is some *decline in public acceptance of collective financing for public services*, or at least the perception of the need for it. Maximum privatisation is by some seen as generally serving the public interest.

Regulatory changes include the legal consequences of the change of delivery opportunities from scarcity to plenty. There are many more opportunities for broadcasting and media delivery, and thus *new regulatory frameworks* are being developed to cope with this. The place and influence of the public service broadcasters in the media landscape is changing. *National media regulation is becoming less meaningful* as the media market becomes more international.

Furthermore, *European Union regulation is playing a larger role in media regulation*, and the Commission – at least in some situations – has been considered to be more receptive to wholly commercial media-interests than those of public service broadcasting.

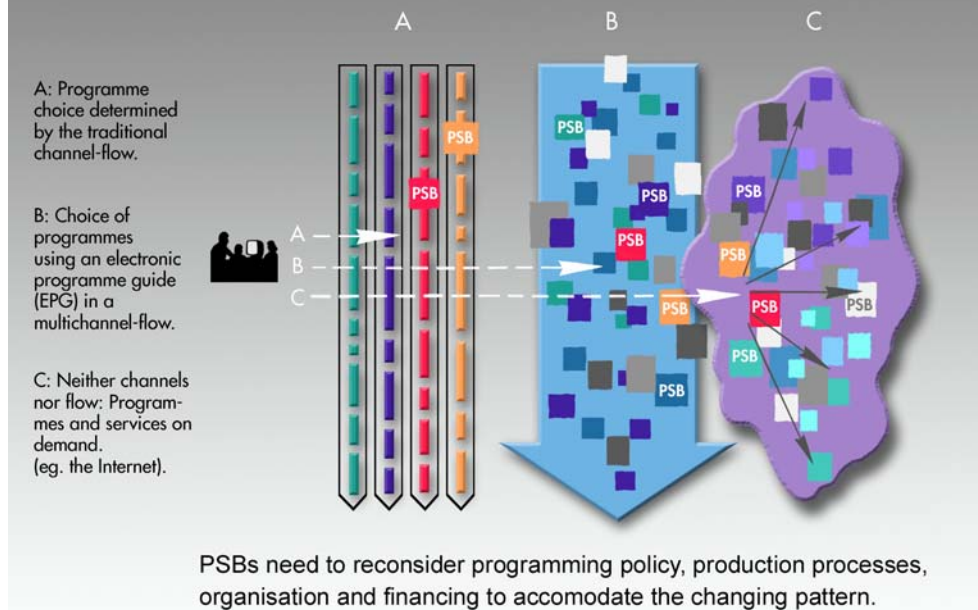
To help comprehend the likely evolution of electronic media, two important shifts in the media landscape are described in the report. First, the evolution of new options for delivering electronic content (i.e. television and radio programmes and channels) which may compliment or supersede existing ones. Second, the changes in the media 'value chain' between creation and production of programme-content, and use in the households of listeners and viewers.

Three stages in the evolution of the pattern of media consumption

Looking from a distance, at the years since radio and television began and into the future of broadcasting, we see a changing pattern emerging, with three main stages or eras (Fig. 1.1) which become options successively available.

The **first stage** is (or was) the **limited channel flow** world (the A-element in Fig. 1.1). The viewer or listener is allowed a small number of programme streams or channels from which to 'catch' the programmes as they 'flow' by. Thus, the programme choice of the listener and viewer is (or was) determined by two central features of broadcasting: channels and flow.

Fig.1.1: The multiple media consumption pattern - three parallel methods of choosing content



In the early days of broadcasting in Europe, when public service broadcast institutions were created, one argument for doing so was the "scarcity rationale". The airwaves were a limited, and thus a precious, resource; and, given the need for national coverage, only a few channels were technically possible. This world of limited numbers of channel flows represented the first age of electronic media. In some parts of Europe, it has already come to an end. The scarcity of media delivery means called for public service broadcasters to provide generalist channels with due care for programming for minorities.

The **second stage** is, or will be, the **multichannel-flow** world (the B element in Fig. 1.1[†]). The viewer or listener is allowed a much larger number of channels from which to catch media as they flow by. This world is enabled by the technologies of cable, satellite, and recently, digital compression. In a given environment, this second stage will probably supersede the first stage, when the limited channel flow delivery becomes un-necessary because there is universal access to the multiple digital channel flow. This is the process of 'digital switchover'.

Where there is a very large channel offer, the viewer/listener inevitably needs help in navigating it. An electronic programme guide or **EPG**, cataloguing and finding programmes across the many channels, can provide this. In this scenario, the channels may lose some of their importance in guiding the listener and viewer to their favourite programmes. If this EPG is attractive enough, it can become the anchor for the viewer, and the centre of his or her loyalty and attention – rather than individual channels themselves. In the multichannel environment, the broadcaster will actually need range of new tools to make the public aware of his programmes.

[†] All the graphics have been created by Christian S. Nissen and Mads Havemann from Danmarks Radio.

The diminishing importance of the channel as the point of departure for the viewer may precipitate changes. Public service broadcasters may need to move their “branding” from their channels, such as it is today, closer to the programmes themselves. Public service broadcasters will need to be active in the development of – or participate in – electronic programme guides to secure a visible position for their programmes.

Not all parts of Europe will enjoy the same kind of channel offer or timescale for the enlargement of services. There may also be different patterns for radio and television, but the general tendency will apply everywhere.

The **third stage** will be the **on-demand** (neither channel, nor flow) world (the C element in Fig. 1.1). The viewer or listener is now able to choose from a range of individual media offers. He can watch or listen to them when he wants. The viewer or listener in principle becomes his own programme scheduler, though predetermined channel flows will still be present for those who want them.

Some media content will need to be available at particular times, such as sports events, so even in an on-demand world, we will still have available the power of the 'shared moment', but most content will be there when and where we want it. The technology of the Internet, and super-versions of today's home Internet connections – 'broadband networks', will finally provide this world. Internet today is the fledgling version of this full service, no waiting, and on-demand world.

But broadband technology is expensive, and in the near term, a simpler type of on-demand service will be available, which will use digital broadcasting, or mix digital broadcasting with today's Internet technology. The home receiver becomes a giant storage tank for media, which the viewer can draw on at leisure. These systems use a digital broadcast channel to top up a receiver storage system. They are the 'client storage' or '**PVR**' systems.

First PVR receivers are already available in parts of Europe. When broadband technology is cheap enough, it may supersede client storage as a way of providing an on-demand world, but this will not be for many years for most parts of Europe. It may be that broadband on-demand and PVR systems will eventually be integrated together. However, since in the DSG began, the take-up of PVRs has been less than expected. This may be because there is a lack of common standards, because costs are still too high for the market, or it may even be a cautionary signal about the public demand for on-demand content.

Across the new eras, the content delivered will progressively include more '**multimedia**'. This is the dressing of those television and radio forms that we are used to, with graphics and text, so that the whole takes on a colour magazine-like appearance on the screen. The services may also make more use of the technical capacity available for the viewer to interact with the programmes via his remote control.

The **three-stage model** of the evolution of delivery systems for electronic media (limited channel flow, multichannel flow, on-demand) is a simple interpretation of current trends. It is important to realize that the three stages will overlap each other. They are not consecutive in the sense that one will take abruptly over from the other. In fact, some European media consumers are already today using all three ways of consumption. Stage 2 (multichannel digital) will be a substitute for Stage 1 (limited analogue channels), and thus when there is no longer a need for Stage 1 it can be terminated. However, there will be a different relationship between Stage 2 and Stage 3, which will be of synergy rather than substitution.

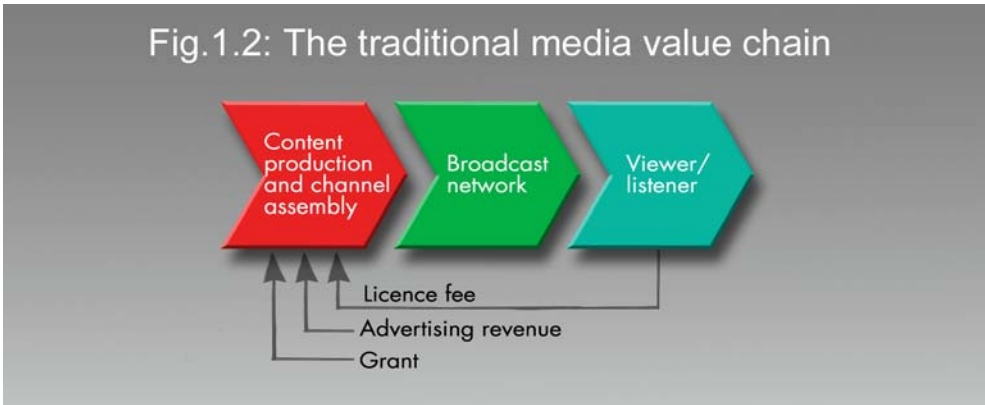
The precise timescales for the transitions between the different stages is impossible to predict, and will vary in different parts of the world. There are differences in economic climates, tastes, population sizes, and existing infrastructures, which will influence this, even within European nations. We can predict that these will be the three stages of media delivery, but timetables for the changes, and the likely periods of overlap, are much more difficult to predict.

Evidence at the time this report is being written points to the success of a ‘digital broadcast core’ model for digital media delivery for the near future. The user may not migrate or switch from programme channels to on-demand. He may continue to use broadcast channels as the principal media delivery channel, but there will be additional layers of multimedia and programmes on demand added selectively by the media provider, and used selectively by the viewer. The content may be seen as having a central broadcast core around which is wrapped optional additional supplementary services of multimedia and programming, delivered either by the broadcast network itself or the internet, via broadband or mobile phone.

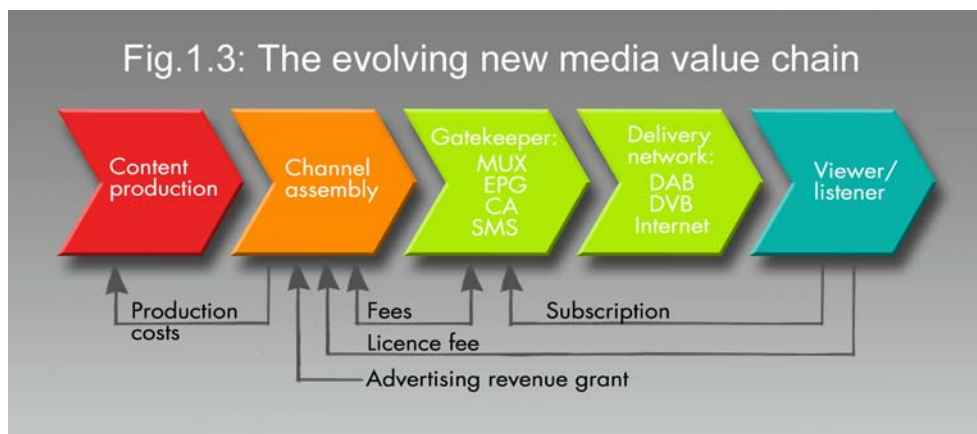
There are many dimensions which will affect the success of such ‘cooperative content network’ systems – infrastructure availability, costs, user-friendliness, and others, but this model may well be the face of ‘convergence’ that we will first experience.

Changes in the media value chain

The other important change in the media landscape is in the media value chain between the broadcaster and the consumer. Until recent years there was only one element in the chain separating the programme maker from the consumer – the operator of the broadcasting network, either being publicly owned or operated by a private company (Fig. 1.2). That element was merely a technical service, which did not interfere with the content, the rights or the financing of the broadcasted programmes.



In this traditional value chain, two very important new elements are now introduced (Fig. 1.3). The **“gatekeeping” function** and a number of **new delivery networks**. The gatekeeper will, through its control over new functions such as multiplexing (MUX), electronic programme guides (EPG), conditional access (CA) and subscriber management systems (SMS[‡]), control the 'admittance' of the consumers to the programme content of the broadcaster, and the possibilities the broadcaster has to be in contact with the audience. This control will also determine the flow of funding, and thereby change the way broadcasting may be financed.



The second new element in the chain is the many new delivery networks in the digital age. Digital radio (DAB), digital television (DVB) and the Internet (and others) will bring new possibilities both in content, and in ways of reaching the audience. But, as can already be seen in the satellite and cable world, they also give room for new commercial operators using their own delivery platforms to create their own broadcasting environment.

1.2 The challenge – and fundamental principles – for public service broadcasting in the new environment

In the digital environment the public service broadcasters have the opportunity to fulfil their mission in new ways, adding even more value to society than they do today. But if they do not respond, if they take no action, there is a risk that they will find themselves relegated to simply providing television services for those who cannot afford Pay-TV. Public service broadcasters must rise to meet the challenges of the new environment. Their present structures probably need changing. They have to adapt themselves, and be pro-active, in order to play their full and rightful part in the new media environment.

At the same time, there are fundamental principles of public service broadcasting, which must continue to guide the strategy and policy of public service broadcasters in the digital environment. These include universality and diversity, accountability, and independence. Policy must be directed to maintaining these objectives.

[‡] The abbreviation ‘SMS’ is used for two things important for the media. The first is the ‘subscriber management system’ which is the system of managing conditional access/Pay-TV systems. The second is for the ‘simple message system’ which is a system for carrying short text items via digital mobile phones. Readers have to check the context to see which is being referred to.

The public service mission is, by definition, a service to the citizen.

- This means that it must be *universally available*. If the service is only available to some social or geographic groups, it is failing in its fundamental purpose. We can expect, as part of the evolution of delivery technology that the audience will fragment to different delivery systems or combinations of them. Public Service Broadcasters cannot expect the ‘mountain’ to come to them. Public service content provision must be available on all media where a substantive segment of the public finds its electronic media. Thus, public service content providers need *access to terrestrial, satellite, cable, and broadband networks*. They must also be a part of the evolution of the *Web*.
- This means that it must provide globally a *full range of media content*. It is no longer essential for a single channel from a public service broadcaster to provide a full spectrum of content appealing to all interest groups in society. But it is necessary for this to be provided by the total offer, including web content that the public service broadcaster provides.
- This means that it must have *editorial freedom, and independence from both political ties and commercial bias*.

The public service mission is, by definition, a service for the individual and for society.

- This means that it must serve *the obligations of citizenship*. Public service broadcasting must be a force to enable the effective working of a pluralist democracy. It sensitises the population to their choices and their responsibilities.
- This means that it must include media content which *preserves and develops national culture and identity*. Public services broadcasters need to enrich our lives, and develop national and European cultural ecosystems, where culture is not just ‘high culture’ – content for the intellectual – but the defining elements of our lives - those things which make us who we are.
- This means that it must include content, which *secures cultural diversity*. Public service broadcasters must be aware of the role they can play to ensure social cohesion.

The evolution of media delivery options (Fig. 1.1) and the changing of the media value chain (Fig. 1.3) forces public service broadcasters to reconsider their place and obligations in the broadcasting world, the way public broadcasting is regulated nationally and by international bodies, and the way their activities are to be financed in the future. These issues will be dealt with in part three of this report.

The public service broadcasters must also *evaluate the extent to which changes to their programme policy are needed*, and how and when to introduce multimedia and interactive content, as well as the issue of how to manage content rights in the new environment. They must *redefine their place in the new value chain*, and their relationship to other organisations, private and public, which form other parts of the chain. This includes organisations whose breadth of operations makes them new 'gatekeepers' to the public. Public service broadcasters must review the way they handle their production processes, technical infrastructure and organisation. These issues are discussed in Chapter 2 of the report.

Public service broadcasters will not be uniform, manifesting themselves as a single conception, which is the same for every institution. But they will have shared visions and shared objectives. As new forms of programme delivery are developed, the institution must be an efficient, living and changing, organism, which responds to the environment while keeping its core values and purpose.

Chapter 2

Managing digital evolution

2.1 Introduction

Chapter 1 considered that media delivery options are undergoing an evolutionary structural shift from limited channel flows, through multichannel flows, to an on-demand environment.

Chapter 1 also described the introduction of two new elements in the media value chain: the gatekeeper function, and the new digital delivery networks (e.g. DAB, DVB and the Internet). It concluded that public service broadcasters in the future will be confronted with a number of challenges in programme policies, handling of content rights, the introduction of new digital infrastructure, new delivery systems and need to re-examine the way they organise their affairs and work flows.

Chapter 2 of the report addresses the issues that are among the most critical for the management of public service broadcasting today, by analysing them and presenting strategic and operational advice for the management of public service broadcasters.

EBU Members are responsible for both radio and television services, and both make vital contributions to the public service mission. The first five issues which follow are relevant to both radio and television, but in order to ensure adequate consideration of radio, a specific section on its future is included as the sixth issue.

The issues in this Chapter are by no means an exhaustive list of those confronting the senior management of public service broadcasters, but they are among the most important. They concern: content forms and branding, rights, digital production and delivery, company organisation, and radio's future.

The questions considered are about the consequences of new technology, and they will arise earlier for some broadcasters than for others. In particular, they will arise earlier for more developed broadcasters than for less developed broadcasters. This is not a sign of neglect of the needs of the less developed broadcasters, which are an integral part of the group of public service broadcasters in Europe, because eventually all broadcasters will face the same issues.

2.2 Programming policies for public service broadcasters in the multimedia environment

Introduction

Public service broadcasters have to begin the decision-making process, about the changes they need to make, by examining what should be their future forms of programme content. This is the root from which the answers to many policy questions will grow. There are connections and inter-dependencies between all the questions considered in this chapter, for instance the issue of delivery media (analogue or digital satellite, terrestrial, cable, and Internet), but the point of departure for much strategy will be the question of what programme content the public broadcaster needs to offer the audience in the multimedia environment.

Current situation

Many public service broadcasters have, for some years, added new digital services to their conventional, linear programmes broadcast in flow-channels. They have experimented with multimedia which is tied to the programme, and with separate multimedia which can be detached from it, and which may or may not be directly related to a linear programme. The situation and experiences vary from country to country. But a simple overview is as follows:

Public service broadcasters in Europe have much experience with **web sites**. Theirs are among the most visited in Europe. As a generalisation, and though there are notable exceptions, today most web sites that are affiliated with television channels or programmes serve as ‘attractors’ to the television service. Many web sites affiliated with radio stations or programmes do more, and serve as ‘expanders’ of the radio service. Some public service broadcasters have special sites that go beyond this, and provide an interactive multimedia experience which could even be provided as packaged multimedia. A fourth category of web sites allow viewers to watch or listen to streamed live events, which are linked to broadcasts. There are, in addition, some radically new concepts for web content. The creative situation is healthy, though there is often a lack of overall company vision for the web.

Experience with **broadcast multimedia** is limited in the EBU as a whole. A number of experiments have been made of **enhanced programming** with different types of core television programme content, and a small number of Members provide permanent multimedia services with their digital broadcasts.

The intention, in some cases, has been to make the viewed programme more of a real-time event, which is more compelling, by providing attractively-packaged pop-up background information, and mechanisms to participate in the programme, such as polling. Functionally, these programmes have worked very well. But, in several countries, assessing their value for the community as a whole has been difficult, because of the lack of a major digital audience base with the capacity to experience them. They have also proved expensive to create and operate. Multimedia complements to news and sports programmes have proved successful.

Broadcast Multimedia can also be used for **interactive stand-alone content**. This includes the Electronic Programme Guide (EPG), news and information services, games, etc. The television becomes an electronic magazine with interactivity. This is the natural successor to the Teletext that has been successfully provided for many years in Europe. The audience for stand-alone content services will not be insubstantial, but this type of content is not likely to dominate the broadcast medium in comparison with linear programming. Importantly, public service broadcasters are not often leaders in EPG today, because they are not the 'platform' providers in the digital environment.

The digital telephone messaging system, SMS, is being used in conjunction with broadcasting, largely to allow viewers and listeners to provide feedback or for polling. Most use is made for young people's programmes, for whom SMS is a common way to communicate.

Public service broadcasters have less experience with **video on demand (VOD)/broadband**. If it proves to be significant for public access to the media, it will be a road that public service broadcasters must take. VOD/broadband could make use of public service broadcaster's programmes and archives, if rights are available, and of public service channels. Fast access Internet, available via broadband networks, would enable more sophisticated multimedia applications to be delivered.

As pointed out in Chapter 1 a critical dimension of content is **branding**. This is the conscious effort to make the viewer and listener remember characteristics they associate with the content, or the content-delivering organisation. The brand is a representation of the spirit of the product provider, product, or personality. Branding is important in the commercial world because it affects sales and audiences. In the environment of public service broadcasting, branding will be needed to guide the viewer or listener, as the media offer becomes ever larger. Viewers and listeners are in a sea of media, and they will need brands as 'islands of trust'.

The **widescreen format ('16:9')** is used for some analogue and digital services in several European countries. Given receivers with certain minimum screen sizes, the widescreen format is more involving for the viewer, and is closer to cinema formats. In the UK, an intermediate format ('14:9') is used for analogue broadcasts, and the format looks reasonable on both standard format and widescreen receivers. DVD movies extensively use widescreen, though their format is often even more letterbox in shape than the 16:9 format. Public acceptance for the widescreen format is growing, and it is likely to become more favoured by viewers as the use of large screen displays grows. Broadcasters who use widescreen will have a competitive advantage for such viewers.

The value of high definition television remains open. It has not seen rapid take up in the parts of the world where it has been adopted, but HDTV programme production may be a useful investment for longevity, or for supplying requests from the HDTV countries.

A range of **audience research** methods are used for obtaining audience feedback among public service broadcasters today; and, though widely used, they are sometimes less developed and sophisticated than those methods used for many consumer products.

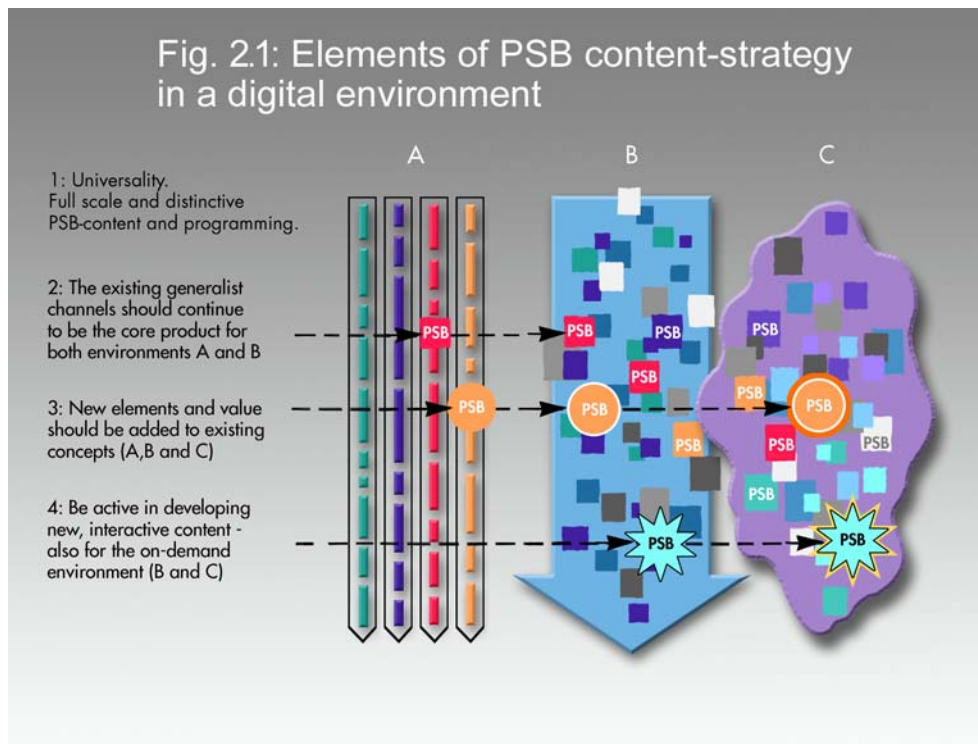
Recommendations

The main product of the public service broadcasters is, and will continue to be, content. Public broadcasters should always focus on ways of producing high quality content in a cost-effective way. The balance of the resources of the organisation should be dedicated to this, and management should always keep this in mind.

Whether radio, television, or both is their business, public broadcasters need to make a conscious and planned move to become ‘multimedia’, rather than ‘single media’ organisations. Their products are not to be just linear programmes, but scalable media products that can be used for multiple delivery platforms. The linear programme is a core component, but creative use should be also made of multimedia. The programme maker needs to create a product with all the relevant media elements available, and for all the delivery platforms that will be used. This requires substantial change in thinking and management. Elements of a public broadcasting strategy for content in the digital environment are illustrated in Fig. 2.1.

1. The overall obligation for public broadcasters continues to include **universality in programming**. This is a precondition for a continuous and close relationship to the audience, meeting the cultural and social role of public service broadcasting.
2. Therefore, public service broadcasters must retain their **generalist channels** as their priority in the multimedia environment. Choice of media content will be greater in future, and generalist channels will inevitably have a smaller share of the national audience. However, public broadcasters should not be seduced, because of this, into new separate commercial or high-tech business models, which are not consistent with their mission.
3. Instead, they should take advantage of new technologies to strengthen their existing programming – for example by adding **new enhanced services** to the existing channels and programmes. As added value elements to already popular programmes, enhanced services can build the bridge between the traditional channel flow user pattern, and the new interactive services. The new digital broadcast environment will bring channels with multimedia enhancements. Public broadcasters must be able to match or lead the field.

Fig. 2.1: Elements of PSB content-strategy in a digital environment



4. The introduction of digital radio (DAB) and television (DVB), the Internet and other new delivery means, gives broadcasters the possibility and the obligation to develop **new interactive and on-demand services**, which can only be used with digital receiver equipment. In the transition period from analogue to digital-only broadcasting, these may be difficult to justify, as these new services will not be universally available. They are also not “broadcasting” in the conventional meaning of the term. This raises a number of questions about the role of public service broadcasting and the financing of such new ‘individualised’ services. These questions are dealt with in Chapter 3 of this report. But, it is important to note that these services create new ways for public broadcasters to fulfil their cultural and political obligations, by providing services which the individual can tailor to his own wishes and needs.

The interactive features of new media will also be an exciting challenge to the traditional way of creating the ‘story line’ in radio and television programmes. Since the beginning of the media, we have worked with the ‘story line’ as a linear flow. That is the way a story has been told for generations, the way music is performed and listened to, and the way books are usually intended to be read, although we, as readers, might cheat and start to read a detective novel from its end.

The ‘cheating’ reader of detective novels is in some ways a metaphor for tomorrow’s radio-listener and television-viewer. The user of new, interactive media will be given the freedom of choice to leave ‘the beaten track’ of the linear story line, and to re-arrange its elements, or to combine them with content from other sources. The programme makers will need new skills and combinations of competences, and a new way of thinking programme content, to be able to make such ‘re-arrangeable’ content.

Public broadcasters need to recognize **the need for a strong brand**, which signifies reliability and quality. They should consider having a specific function in the organisation with the task of developing and establishing the public's perception of their brand. Brands can apply to groupings to channels, individual channels, or specific programmes. The brand should be the bridge to new media. The more successful multimedia services will probably be those that are connected, by branding and by content, with the linear broadcast programme services.

Part of the success of branding is visibility. More channels and more platforms mean more visibility. Nevertheless, this has to be balanced against the cost-effectiveness of the media delivery method, platform or channel, and the resources available to provide high quality content for it.

A brand image must be backed up by the reality. Securing content of quality for all the new channels and services will be difficult for many small- and medium-size public broadcasters. They need to find ways to **cooperate with other private and public organisations**, to obtain the high quality content without losing their role as public service broadcasters. Different sized companies will need different approaches, conditioned by audience size and local context. One solution might be to collectively join with content financing consortia, and/or be the motive force behind them. Cooperation with Sports Federations for on-line multimedia, for example, is proving productive.

Public broadcasters need to develop their tools of obtaining **audience feedback** for their content. The purpose will not be the same as it is for many consumer products. For public service broadcasters, it is to help maintain the quality of the content, and to provide mechanisms for accountability, which is a vital attribute of public broadcasting. Public broadcasters also need to develop models which will allow them to evaluate success in their mission. Such models will not be based solely on audience size, but on a combination of elements which include audience size, satisfaction, stimulation, and other parameters.

2.3 Securing content rights for Public Service Broadcasters in the digital future

Introduction

If the most critical element for broadcasters is the content they provide, then one of the most critical barriers to providing good content is likely to be rights. The problems and complexity of content rights will increase in the new media environment. Public broadcasters need to understand this, and take appropriate early action to forestall barriers.

The current situation

The increasing development of the on-demand environment, and other factors such as the growing demand for content, is creating a new and potentially more difficult situation for broadcasters, in obtaining rights for content such as music, sports, and movies.

For example, if record companies have widely used outlets for their product via Internet, they will have less need for broadcasting as a showcase for their products. They will also want to control themselves the distribution of their products.

Furthermore, mergers are creating giant companies that will not need outside collecting societies – they will want to do it all themselves. It remains to be seen how far the record companies, to be successful, will need any other parts of the media industry.

In sports, the general trend over the years has been that public service broadcasters gain access to fewer sports rights for premium events. Non public service media companies are acquiring exclusive rights through very large bids, or by club ownership. Sports clubs provide web services directly themselves, and in some cases their own broadcast channels. How far sports promoters, to be successful, will need public service broadcasters also remains to be seen.

A new rights-bidding environment is emerging. International media companies, who provide channels or content in a number of countries, are able to collectively negotiate for rights for all their outlets. Those with a wide range of media interests beyond broadcasting can exploit the rights in their other media, and thus increase their bidding power. Public broadcasters do not have such possibilities.

In the digital world, where content can be a combination of linear programmes and multimedia applications, rights will become more complex than in the analogue world of linear programmes alone. Broadcasters will need to take due account of any multimedia format rights, and protect themselves accordingly.

The lack of revenue producing models for Internet has curbed early enthusiasm for using Internet as an independent commercial tool for disseminating content such as premium sports, but this may change as confidence returns to the web environment.

The tools available for ensuring fair and legal use of content are either legal or technical. The drawback of technical tools is that they can always be defeated with sufficient know-how. Technical tools can only ever be a greater or lesser deterrent against piracy, and never a guarantee of security in perpetuity. Equally, the legal situation is complex. Large national differences in regulation exist, and the legal process is very slow. In spite of these factors, public service broadcasters must encourage and use both these tools.

The individual-to-individual (peer-to-peer) content exchange of music on the Internet may eventually lead to wider usage of such systems for ‘broadcast’ programmes – the ‘napsterisation’ of media delivery as a whole. This is, in any event, not technically possible today, because of the limited capacity of the Internet. Public broadcasters as content producers will need to follow legal and technical developments.

Recommendations

Content rights are complex. Senior management of public service broadcasters often refrain from taking the necessary level of interest in the legal and technical aspects of securing rights. They leave it to their legal and technical departments, and hope that they (helped by the EBU collectively) can solve the problems. They have often done in the past. But in a more complicated future, the problems will only be solved if senior management pay more attention to the questions, and make them an integral part of the overall strategies and policies of the organisation. Some of the elements of such strategies could be the following:

1. Many tools are being studied and discussed to **prevent or deter piracy** of media content. The EBU should help to develop them. Members should be able to assure content providers that delivery by an EBU Member brings maximum assurance of legal and fair usage of their content. EBU Members should enhance the attractiveness of public service broadcasters, as users of rights, by helping the development of systems that deter piracy, and by implementing copy protection based on open standards wherever possible.
2. EBU Members should consider creating a **collective rights-free data base of music recordings**, and other appropriate content, which can be used by EBU Members.
3. Public broadcasters must plan their rights, and rights negotiations, with scalable content and multi-platform delivery in mind from the outset. Acknowledging the need to do so can be difficult if the organisation is not geared to multimedia/multi-platform output.
4. Whether content can be reused in archives will depend critically on **content rights**. The greatest single obstacle for Public Service Broadcasters, to a successful and well utilized archive system may be content rights. Archives are a technical system for re-using content, in part or whole. If rights issues prevent this, the most sophisticated technology will have no value. Members must examine and clarify their own rights situations before taking decisions on archives.
5. If they have not already done so, to take account of the new multi-platform environment, public service broadcasters need to **negotiate rights on the basis of the number of actual viewers or listeners**, rather than the potential number of viewers or listeners.

2.4 The migration of programme production equipment and infrastructure from analogue to digital

Introduction

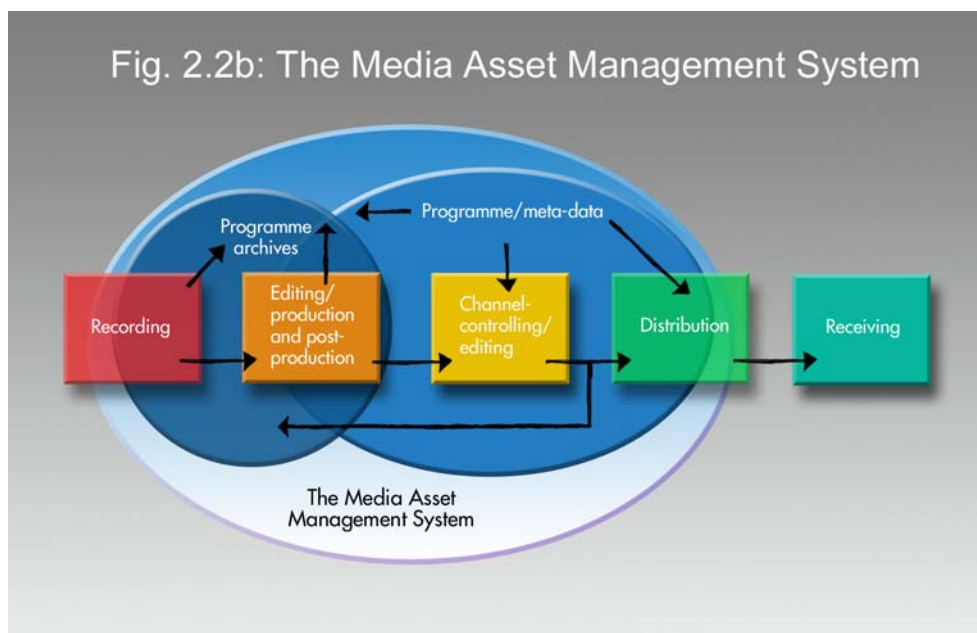
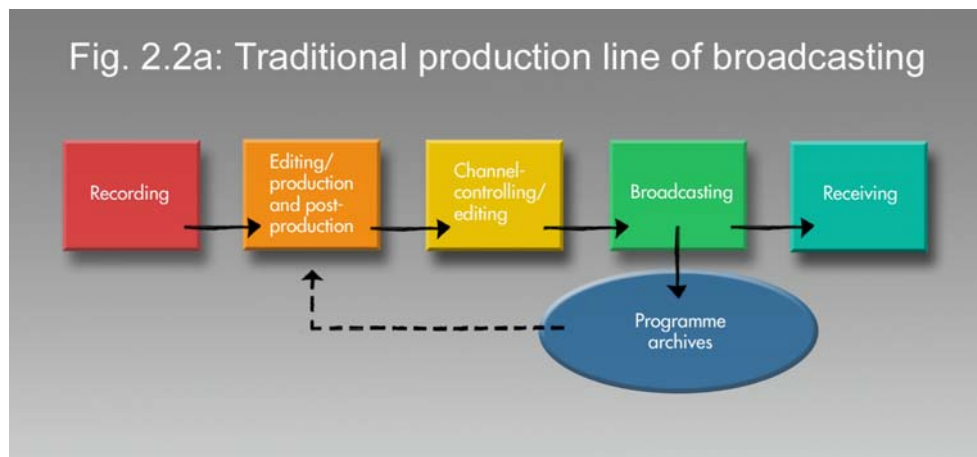
The transition from 'analogue' to 'digital' offers significant benefits in the programme production environment. This transition can also make it possible for organisations to develop from single media organisations to multimedia organisations in a cost-effective way. Getting this transition right is one of the key policy decisions for public broadcasting management. The timetable for the transition to 'server-based production' will vary between broadcasters, but the strategic direction is clear. The issue is not 'if', but 'how' and 'when'.

The current situation

Digital tape recorders provide enhanced facilities, and better quality, at lower cost than analogue tape recorders. Similarly, the use of stand-alone desktop computers for editing audio accelerates the production process, and improves productivity. These are examples of direct replacement of analogue equipment by digital equipment. But, more significantly, the whole production process can be transformed by 'networked' production systems using content stored on computer servers. This will allow production staff to assemble programme

material on computers, including searching material from the archives. Using information technology for production will increase efficiency and facilitate multimedia production. Fig. 2.2a and 2.2b illustrate the digitalisation of the production process and the creation of a “media asset management system”.

The concept of the ‘media asset management system’ is meant to imply the totality of the means needed for programme production, storage and pre-delivery. When this is developed, it is important to see the management of rights as an integral part of the system. The hardware system alone is sometime called the ‘content management system or ‘CMS’.



Networked systems for radio production are now widely used. Some public broadcasters have invested in video systems for news operations, where the operational benefits are most obvious, and where attitudes are most open to new technology. The current generations of equipment use 'proprietary' standards, and thus they generally will not interoperate with equipment from other suppliers. Members who use them risk being captive customers of the supplier.

A key to networked production is the development of systems of '**metadata**'. This is text and numerical information about the content which is recorded and kept with it. This can be used

for labelling, for search and retrieval of content, and for a wide range of business elements of programme production and delivery. Metadata will be an important constituent of archive systems, and it will be the fundamental element of the whole production media asset management system.

Archives will play a central role in server-based production. Servers will be a repository for 'old' programmes, but they will also store captured raw material, so that it can be accessed and edited by any production team. The archive system will not therefore be a stand-alone system which can be used in isolation from the production process. It will need to be a cornerstone of the media asset management system, and it will need to be integrated with, and interoperate with, other components. Archives will move 'up-stream' in the production processes from being the last element, where programme material was stored after having been broadcast, to a central position as the heart of the whole production system.

Recommendations

As with content rights, (see Section 2.2 above) the senior management of public service broadcasters must pay great attention to the task of moving their organisation and the whole production system from the analogue to the digital and 'software' world. Management must realize that it is not merely an exchange of one type of technical equipment with another. To harvest all the fruits of the digitalisation, the organisation, the work processes, the staff skills and a number of other aspects of the whole organisation need change.

The digitalisation of the production equipment and infrastructure is a very, very big investment in money and time. Arguably it is the biggest challenge for broadcasting companies in modern times. For that reason senior management must take full responsibility and an operational part in the process.

1. **Networked production systems for television** are not yet sufficiently mature for general use. These systems are also currently relatively expensive. Broadcasters can choose to buy such proprietary equipment today, or wait some years until they are able to buy similar equipment at lower cost, and which may use open standards. Experience suggests that, in general, early adopters of new production technologies regret their purchase later, because of a lack of inter-operability. However, the purchase may be justified if there are immediate operational savings, or improvements to the quality of the content produced, which outweigh the disadvantages. For a new station, however, networked production should be envisaged from the start, in spite of any lack of open standards.
2. **Networked radio production systems** are already widely used by public broadcasters, because the audio world is technically less demanding than video. The experiences drawn from the digitalisation of radio can be very fruitful in similar processes in television. Television companies may want to draw on the experiences of radio companies.

3. One major obstacle, and a very costly one, is **the lack of common, open standards** for digital production systems and equipment in radio and television. The companies developing and producing digital equipment and offering it to the market see their companies' interest as served by being first in the field. They are in competition and often use their own proprietary standard as a weapon in the competition. Broadcasters must work together, exchange experiences, and actively encourage open standards. The EBU can here play an important role. Broadcaster's interests are served if the competition is for price and features, rather than technical standards.
4. Public service broadcasters must take an active part in understanding and defining **requirements for metadata** systems, to ensure that their practices and needs are met. They need to be part of the process of deciding what text or numerical information public broadcasters need, or will need, about 'captured' content, to be efficient and effective. The metadata will be the basis for the production process for decades to come, and it is the glue that will bind together the elements of networked production. However, extra effort will be needed to generate and insert the metadata, so its inclusion must be worth the effort.
5. A key managerial issue comes from the fact that networked production systems need **new organisational structures, new work flows, and new attitudes and skills by the staff** who operate them. Public broadcasters need training for new competences, both for production and technical staff. Experience shows that production staff who make the transition have greater job satisfaction in an 'IT' production world. It is an environment where less operational technical support is needed, because production staff can do more themselves, provided they are so minded, and are trained in the new methods and working practices. The technical staff that are needed will need more software skills than conventional broadcast hardware skills, and will form a technical 'back office'.

When Public broadcasters begin establishing digital archives they are faced with an enormous amount of content. One **practical approach in the digitalisation of archives** may be to begin by creating archives for material which will otherwise perish, then turn to archiving current material as it is made. Other content could be digitally archived when needed as part of a current programme. A 20/80 rule will surely apply to the usefulness of archived material.

6. As mentioned above, the digitalisation of the technical infrastructure and production equipment is a very large investment, both in money and manpower. Although it is difficult to make precise calculations, different forms of **cost-benefit analysis** must be used as part of the basis for investment decisions. One of the problems is that such investments in new digital equipment very often cannot be postponed. Analogue substitutes for worn out equipment may be impossible to obtain, and this will force the transition to digital. The long term strategic perspective of the transition and its consequences influence the whole organisation, and it is difficult to evaluate the long-term cost benefits. Nevertheless, some form of systematically comparing the costs with the benefits must be carried out, to secure the optimal use of the resources and the timing of the investment.

2.5 Securing universal coverage with new delivery methods in the digital environment

Introduction

In the past, broadcasters achieved universal coverage by using terrestrial radio and television transmitters. In some countries, cable systems extended the coverage of terrestrial transmitters, and have become the dominant means of delivering TV services. Broadcasters now have to decide how to implement ‘universality’ in the digital new media world, and what mix of platforms and delivery media will provide it in the most cost-effective way.

Digital radio can be provided by a range of delivery systems. But for public service radio, the essential delivery media has to be terrestrial broadcasting. This is because of the key role of local and regional radio, and the need for portable in-house reception. The technology best suited to multichannel terrestrial digital radio is DAB. Radio’s future is discussed in more detail in Section 2.7, and will only be mentioned briefly in this section.

Current situation

Satellites, terrestrial transmitters, or cable networks can each deliver digital television and radio. Currently, a number of digital television satellite bouquets are available, targeted at specific European countries. The ‘platform’ operators usually include public service broadcasters in their bouquets. In a few European countries, digital terrestrial television is also available. There are plans, at various stages of completeness, in other countries to commence digital terrestrial broadcasting in the next few years.

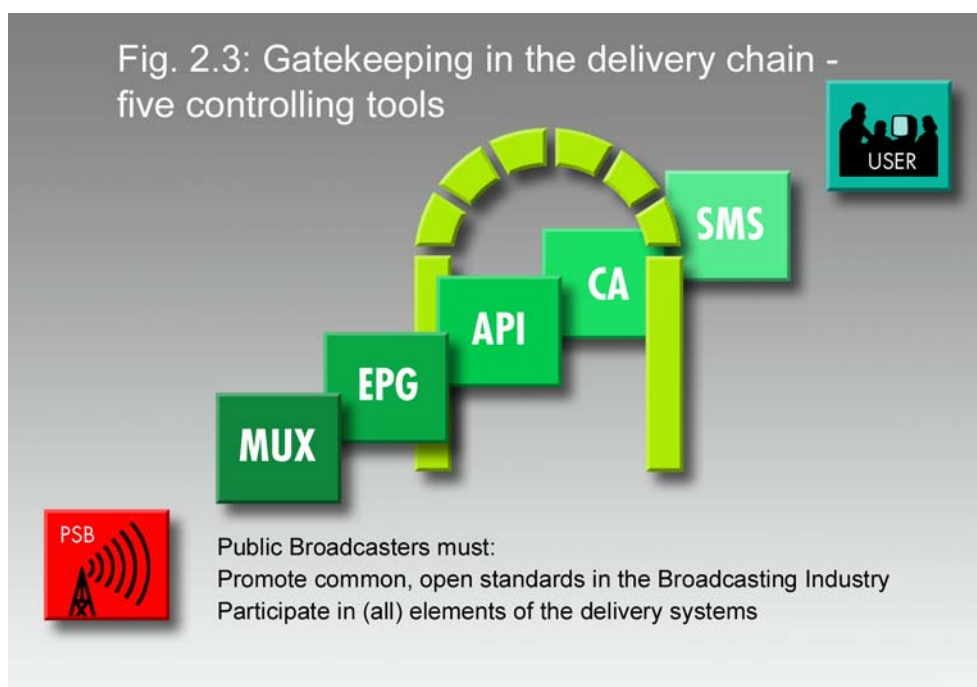
The digital satellite bouquets operate as ‘vertically integrated’ services, which are essentially Pay-TV services. They have been most successful in countries where, previously, channel choice by terrestrial transmitters or cable was limited. In many cases they operate as a ‘platform’, with proprietary technical elements needed for reception. In this way, the platform operator acts a ‘gateway’ between the broadcaster and the public, rather like a cable operator. The platform operates as a ‘technical universe’.

Digital terrestrial models of mixed free-to-air services and Pay-TV were not successful in the UK and Spain. New service models are planned, which have different emphasises. These include ‘all free-to-air’ models and ‘service to portable’ models[§]. We should note that digital Pay-TV satellite services have also failed to meet expectations in several parts of Europe, so the recipe for success is not simply one of using free-to-air or Pay-TV.

If the role of digital broadcasting is to provide Pay-TV, the public interest is in any event, arguably, not served. Though valuable, Pay-TV is only accessible to those who can afford it, and it does not provide the content or breadth needed for public service objectives. We can also note that Pay-TV cannot be a mechanism for migration from analogue to digital terrestrial broadcasting. This step, very much in the long term public interest, has to be accomplished by the free-to-air services and by public service broadcasters.

[§] The EBU has established an Ad-hoc group to share experiences with different models for digital terrestrial broadcasting, and its conclusions are available to EBU Members.

Although all digital broadcasts in Europe rely in part on specifications developed uniquely by the DVB Project, private operators were not prepared to use a common conditional access interface system in their set-top receiver, and the process of agreeing a potential common multimedia system has taken many years. For digital satellite broadcasting, this has created a closed market for digital satellite television receivers. The viewer has very little real choice of receiver, and access to the public is only possible if the platform operator agrees. The role of the platform operator as “gatekeeper” of the digital media world is of great concern to EBU Members. Fig. 2.3 illustrates the range of gatekeeper elements. The first digital television broadcasting services to be launched have been provided by what is effectively a new kind of broadcast ‘value chain’, where operators control access to the viewer with proprietary hardware. If public broadcasters are outside this value chain they risk losing their relationship to the viewer, and risk being unable fulfil their public service mission. They need to find ways of being part of the new value chains.



Public service broadcasters need to achieve 'universal' coverage for their digital public services. A critical strategic issue is whether this needs to be achieved by digital terrestrial television, or whether a mix of delivery media can be used. In any event, public broadcasters will need to be present on a plurality of delivery media. There is probably no unique solution for all EBU Members. The decision is complex, and needs to take into account multiple factors. These are mainly the following:

- Geographical considerations - the size of country, population density, and terrain
- Existing infrastructure – existing cable and satellite use – and likely developments for broadcast spectrum
- Economic climate
- Regulatory environment and government policy
- Competitive environment
- Gateway environment.

A critical and difficult strategic issue in the digital transition will be the length of time for which both analogue and digital terrestrial signals are broadcast. Except in circumstances where the analogue terrestrial broadcasts are already in marginal use, public service broadcasters recognize that this should ideally take account of late adopters, which is likely to mean a transition period that may be as long as 15 years.

On the other hand, as custodians of their income, public broadcasters must recognize that long transition periods will be very costly, and will use funds that could be used for programmes. If the transition from analogue to digital terrestrial is slow, it may well be irrelevant anyway, because the viewing public will have been attracted to other media for receiving the digital content, which will be more rapidly available. Special measures, which involve the national government, will probably be needed to balance all these opposing requirements.

Replacing an old technology by a new technology is often achieved in an open market by making new technology equipment available at higher cost, and then, only at a later stage when development costs have been recovered, making available lower-cost new technology equipment. Public broadcasters are there to serve the general public, and this mission is not compatible with providing services only for viewers who can afford to buy higher-cost equipment. Public broadcasters need to find ways to ensure that digital broadcasts are rapidly accessible to everyone. Doing so will reduce the 'digital divide' and contribute toward the 'information society'.

In the next few years, hard-disk video recorders ('PVRs') are expected to be widely available. They may change broadcasting by allowing viewers to break free of programme schedules, and have implications for the value of advertising. They will provide a 'virtual on-demand' service which may reduce the value and demand for broadband networks. However, the popular take up of PVRs has been slower than expected in countries such as the UK and US where they have been available. Those viewers who have them find them very useful and worth buying, but there are currently no signs of rapid growth.

Recommendations

The relative importance of different delivery media and platforms will vary from European country to country, and though some may achieve universal geographic coverage, none will uniquely achieve universality in terms of adoption by consumers. EBU Members could adopt a policy of being present on all platforms, but there is a risk that a blanket policy would not be cost-effective. The best policy would be to be present on "all significant media and platforms". Public service broadcasters would use only those with significant penetration.

1. For **non-traditional delivery media** (Internet, broadband, UMTS) public service broadcasters should decide which to support case by case. Some of these delivery mechanisms open useful opportunities for public service broadcasting, including for alliances. Broadcasters should not necessarily agree to distribute their free-to-air services over such delivery systems, unless their additional costs are covered by third parties.

It is vital to distinguish between the cost effectiveness and roles of over-air broadcast delivered media and Internet delivered media. Broadcasting is not duplicated by Internet. Each has unique attributes. Over-air broadcasting is, and will remain, the most effective method for delivering the same content to very large numbers.

2. The route to successful **digital terrestrial broadcasting** of free-to-air television and radio is not yet clear. Neither the free-to-air only model, nor the mixed Pay-TV/free-to-air model, have yet proven themselves. EBU Members must discuss the transition, vital for the public good, of terrestrial radio and television broadcasting, including transition length and transition funding, with their national governments. Public broadcasters need to analyse the consequences of being outside the new value chains, and if needed seek ways of being a part of them. Furthermore, they need to find ways of making the migration to digital as rapid as possible.
3. When deciding whether to enter a **delivery venture that involves Pay-TV** public broadcasters must proceed with caution. There are many factors which will influence outcomes, but experience is suggesting that ‘second comer’ competition for Pay-TV audiences, where a large programme channel offer is already available, will probably fail, unless the programme offer is dramatically more attractive than the incumbent one.
4. As is the case with digital production equipment, the delivery world is also burdened with **closed, proprietary technical standards**. Competing cable and satellite operators use their own systems. A broadcaster can find himself in the situation of being forced to deliver the signal of a TV-channel with new interactive services in 2-3 different technical standards to secure the delivery to all the viewers. The different standards also influence the market of set top boxes, and are a hindrance for a market development that can secure lower prices and greater choice of receivers. There is pressing need for co-operation in this field, and public broadcasters should joint together, on a European basis, on a regional basis, or within the framework of the EBU to promote a common, open standard ^{**} for the broadcasting of digital television signals .

2.6 Different ways of organising public service broadcasters in the multimedia- and digital future

Introduction

With new programme-content, new production-infrastructure, new workflows and a different environment, public broadcasters must also re-evaluate their organisational structures and consider changes. While organisational structure is no substitute for creative talent, it has an important influence on both the quality of programme-content and the efficiency of production, and is thus a critical strategic matter.

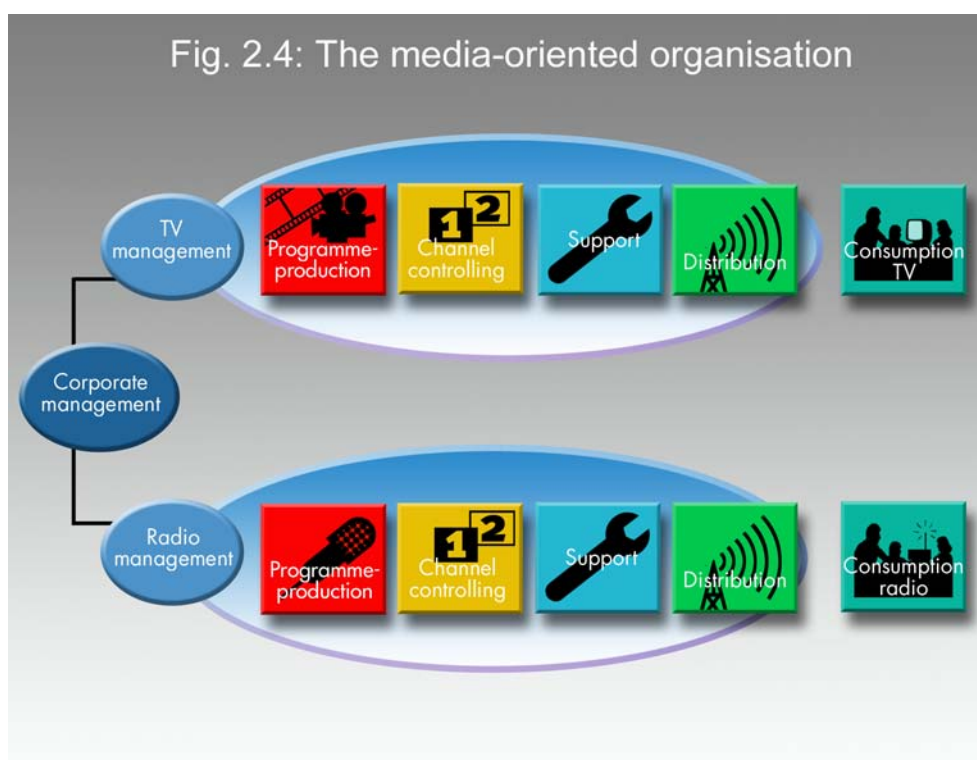
Public service broadcasters need to re-organise themselves to suit the emerging environment and new ways of working in the production. This includes the growing use of multimedia for accompanying content or for separate web services, the probable migration of members’ radio and television services to a greater plurality of channel offers, and the convergence of the media in general. There are a range of options for re-arranging the organisational structure.

^{**} Serving as an example, the public service broadcasters of the Nordic countries have together with all the private television and tele operators reached an agreement on a common, open standard for set top boxes in the territory (the “NORDIG” co-operation).

Current situation

There is a wide variety of organisational set-ups among the public service broadcasters in the EBU. Some EBU Members are responsible in one and the same organisation for both radio and television. While others only run one or other service. There is no observable pattern of common practice for the organisational structure of public broadcasters in countries that are large or small, or have different or the same economic circumstances. The structures of organisations that have been in being for many years reflect their history, and to some extent yesterday's environments.

Organisational structure can be seen as having several layers. A basic organisational structure reflecting the distribution of responsibility and power, and another structural level which determines the way the resources (e.g. the budget) are distributed within the organisation.

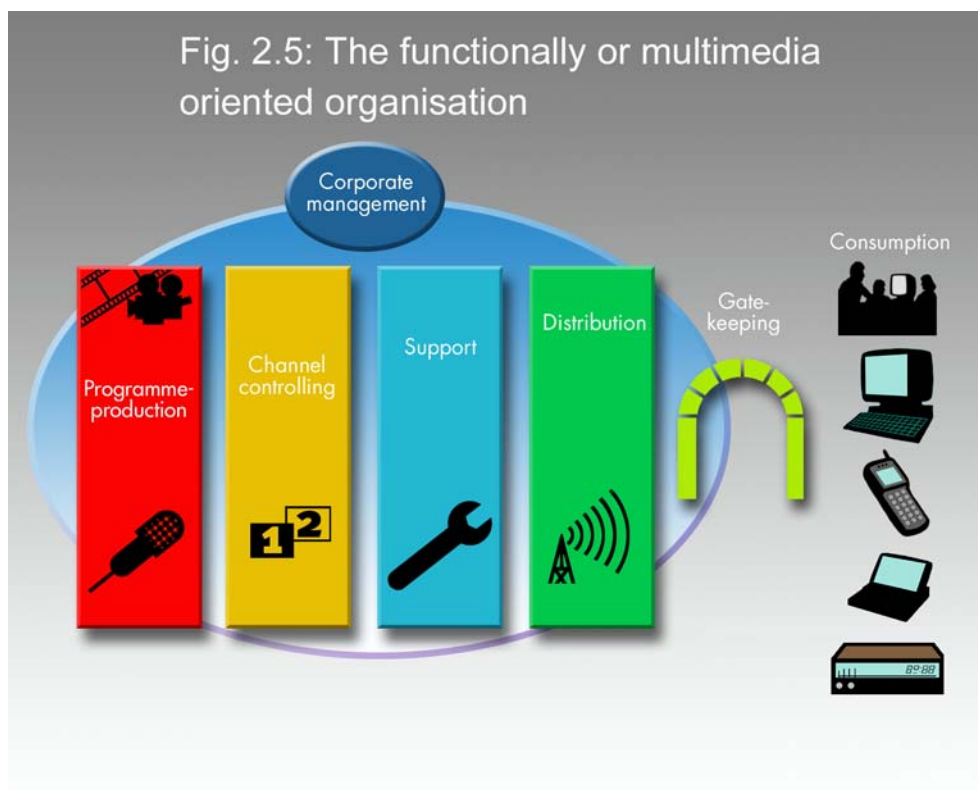


There are two main **basic organisational structures** which have variants:

- A classical structure for combined radio and television public service broadcasting is the **'media oriented structure'** (Fig. 2.4). The company is arranged into relatively autonomous parts, each concerned with either radio or television. In many ways it mirrors the separate use of the receiver-apparatus (radio or television) in the home of the listener/viewer. Each radio and television domain in the broadcasting organisation have their own production staff, facilities and managerial staff. The advantages of this structure includes the focus it brings to the separate managements and staff, who have a commitment to their service. This same advantage applies to broadcasters with entirely independent radio and television organisations. The advantages of a clear cut separation between radio and television production may become less in a multimedia environment

where technology, content rights, and ways of working are merging across the traditional media-separation.

- Another structure which has been applied more recently by some public service broadcasters is the '**functional or multimedia oriented structure**' (for a simplified form see Fig. 2.5). The company is arranged in relatively autonomous parts (combining radio, television and multimedia) for each of the main functions, or divisions in the operation: Channel controlling, programme production, support and internal services. Programme production itself is not separated according to channels or media, but according to program genres. The advantages of this structure include the synergies of resources and talent for programme production, cross-fertilization of ideas, and greater scope for cross-departmental usage of programme-content that is carried by several channels or services, and across multiple delivery platforms to a variety of new combined receivers for different user situations. Drawn to its outer limits of extreme 'bi-mediality', this model can have disadvantages in a loss of focus.



One of the variants to the two models is to create near autonomous entities for each part of the broadcasting activity. These entities are held together by a holding company which has a majority shareholding.

Different ways of **distributing the resources** within the broadcasting organisation can be illustrated with two models.

Traditionally the distribution of resources has been carried out in a **annual "top-down" process with fixed budgets** where the over-all budget is distributed to all units (programme departments, production units and internal services) more or less in the same amounts as the previous years (often with only marginal changes). This secures a degree of internal certainty that programme makers can carry on from one year to the next without worrying about damaging budget cuts. The disadvantage is that it can bring not only a freezing of resources but also of activities. It can be very difficult to change priorities and to find resources to finance new activities.

The need for more flexibility, and for being able to accommodate more easily to external changes, has led some public broadcasters to introduce a **more 'market oriented' way of distributing resources** internally. An internal market can be applied in both the media orientated structure, or the functional or multimedia-orientated structure. The total programme budget of the broadcaster is given to the channel controllers, who can be free to choose or not from internal programme departments or external producers. In the limit, the channel controller may have no internal production facilities, and may thus become a 'broadcaster-publisher'.

In this model it can be easier to change priorities and to move resources from one (programme) department or type of programmes to another. The model opens up internal competition and can stimulate internal efficiency and creativity. On the other hand critics of the 'market model' point to the risk that the internal competition creates too much uncertainty among the programme departments. Uncertainty can have a damaging effect on creativity.

It is the radical changes in the media environment of public service broadcasters, and the necessity to accommodate to the multimedia future, which has precipitated the introduction of new organisational models and the internal market in some broadcasting organisations. Several of them have also instigated 'new media development units', whose objective is to encourage and assist in the application of new media, while the programme makers themselves develop the scalable content packages for their programmes.

The fact that most public service broadcasters use public funds makes it more important for them to be **cost-effective**. At the same time, being a not-for-profit organisation makes evaluating cost-effectiveness more difficult from a managerial point of view. There are no direct means, such as rising or falling profit margin, to help determine good management practice or good organisational structure. There are however indirect means, such as benchmarking and peer review, which can be helpful. Public broadcasters try to measure results by the quality of the programme output and the degree to which they meet public needs rather than profit or surplus. This is a difficult task and will need more attention by senior management in future.

Recommendations

The management of public service broadcasters should recognise that radical organisational restructuring is a momentous matter, which not only influences the way the entire organisation is operating, but also the hopes and dreams of thousands of employees. It is therefore often met by staff with mistrust. It requires thorough preparations, and a good deal of skill and courage by management to carry out.

1. In analysing the need for organisational changes, and in carrying them out, it is an imperative to **involve middle management and the employees** (and their staff unions). EBU Members, like any successful organisation, must be prepared to ‘live with change’.
2. External **management consultants** should only be used with great care, and never without top management (the DG) taking full responsibility for the process.
3. The EBU should establish a **database of Member’s organisational structures** and organisational developments within EBU Members^{††}. This should allow Members to evaluate trends, to share the experiences of other members, and thus arrive at their own conclusions on the optimum organisational structure for their circumstances. EBU Members should also share ideas, and establish a database of techniques for evaluating cost-effectiveness in public service broadcasting organisations.
4. The EBU should establish mechanisms to allow **Directors General and their senior staff** to share experiences in organisational development and structure.
5. Senior management of public broadcasters need to have some **grasp of new technology** and what it can do, when planning organisational change. This will pay off in good decision making.

2.7 The future of radio services in the digital multimedia environment

Introduction

Radio is the most widespread, used and trusted mass medium. The strength of radio is its low cost, and that it can be present and used everywhere. One of the features that listeners may welcome in future is the ability to choose to a greater extent what to hear, and when to hear it. The digitalisation of radio will bring many benefits and can also help provide this facility. Through more choice and increased interactivity, digital radio can bring the listener anything – anywhere – anytime.

The current situation

The annual turnover of radio in Europe is € 9.8 billion. The European radio sector includes 400 public service stations which account for over 50 per cent of turnover, and 38 per cent of listening. As time goes on, these proportions will change as more non public service radio stations come on air. Non public service radio today counts 5,100 stations in Europe with total revenue of about € 4 billion. Radio in Europe is a growing business. The expected level of growth is 6 per cent per year over the next 5 years. European listeners have a rich and growing choice of radio stations.

^{††} The provision of this information has been set in motion.

Radio listening time is growing, even as Internet and other media use grows. Radio is the medium most used to accompany life at the PC and Internet. The Internet, with its offer of music, sound and other audio services even tends to increase the demand of radio.

The amount of radio spectrum allocated to digital radio by European governments is modest, and not enough to both simulcast existing services and launch an attractive range of new radio services. If DAB receivers were able to receive FM, this may be less of a constraint. The termination of FM radio would create major problems, though unless the band could be used for DAB, and/or other bands are made available.

The move to digital radio broadcasting is unlikely to be dominated by any one distribution platform. Digitalisation will see radio move from a single distribution system to a multi-system medium utilising terrestrial, satellite, cable, internet, digital television set top boxes, mobile phones and other mobile and wireless devices. The digital transmission systems available will include not only DAB (a digital radio multiplex delivered by terrestrial transmitters), but also satellite delivery and the AM replacement technology DRM. In the United States, a digital delivery system in which a digital version of the programme rides piggy back on the analogue version is being introduced.

Free-to-air radio in Europe has tried to make **the transition from analogue to digital broadcasting** over the past ten years with the DAB system. EBU Members have invested significantly in digital radio, and in some countries, the private radio sector has also done so. The strategy has been to use an open standard and encourage an open market in digital radio receivers (a ‘horizontal’ market). So far, it has not succeeded in most of Europe. Digital radio has faced a dilemma in moving into the digital broadcasting environment. The existence of a large range of analogue radio stations, and the low costs of analogue radios, has meant that the DAB receivers need to be provided at a competitive price, and with a large new content offer, to make them attractive.

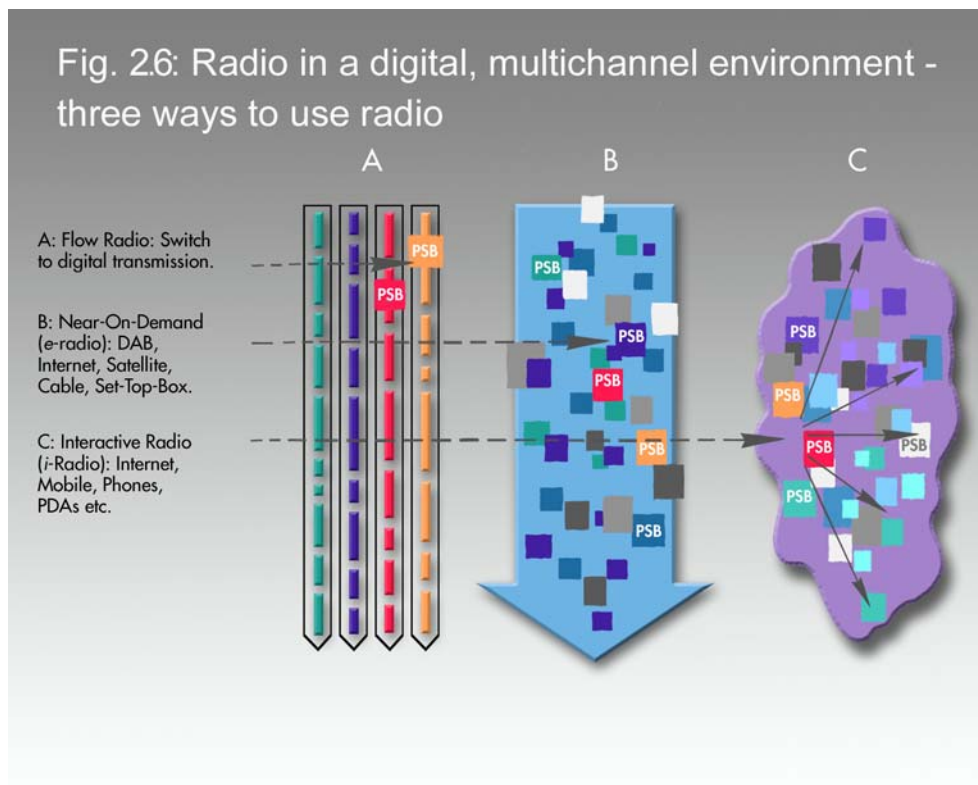
Currently DAB radios are not manufactured by the large manufacturers, and though DAB signals are widely available in Europe, the transmitter networks do not offer yet complete coverage. Manufacturers argue that in order to justify volume production, DAB signals must be universally available.

But recent developments give ground for optimism. Retail prices are now falling, making the purchase of a DAB receiver affordable. Several of the large European car manufactures are now planning to install DAB radios in their car models. Also, broadcasters now realize that they must provide new DAB-only channels to motivate the listeners to buy a DAB receiver. The development of digital radio is a fundamental requirement for a mobile society, and this fact should bring political support for its development.

Radio and the Internet have successfully ‘converged’. More than 50,000 radio stations are on the Internet, and more than 50 per cent of Internet users have heard radio or music on the Internet. Today, most radio stations in Europe operate a web-site with some or all of the following services, illustrated in Fig. 2.6.

- **Radio Stream**
Simulcasts of FM or AM service
- **Web Stream**
Streaming of radio services exclusively on the Internet

- **Radio On Demand**
Single programmes or programme packages, allowing time independent listening on demand
- **e-Radio**
Enhanced Radio – radio streams, web streams or radio on demand with 'added value' as for example music information, links to related sites or information, possibility to buy or download music or other products related to the programmes.
- **i-Radio**
Interactive Radio, where the listener decides the content and order of programmes via easy-to-use interactive user interfaces. The listener can 'build' his or her own radio station from single programme elements (music style, number ad frequency and duration of news interruptions, localized or personalized weather and traffic info, special interest programmes (sports, business etc.). The 'personal radio station' can be adjusted manually, or via 'agents' creating an individual "listener profile", and provides a service reflecting the tastes of the individual listener.



However, Internet is fundamentally a one-to-one service rather than a one-to-many service, and it is not cost-effective in providing the equivalent of radio broadcasting. Internet radio will be valuable and important as can be seen above, but it will not be a substitute for broadcasting.

Recommendations

Analogue radio transmission will survive for at least another decade, but digital transmission systems must be established in order to improve and enhance radio listening and expand choice. In the long term, no one believes that radio can be the only means of communication trapped in analogue technology. An offensive strategy for public broadcasters promoting digital radio should include the following elements:

1. To increase the attractiveness of digital radio, to ease the transition to digital radio, and to exploit the potential of growth in audio demand, public broadcasters must offer their audience **new content that is not available on analogue platforms**. This also means that all DAB receivers must be able to receive FM. Radio thematic channels can be effective and not costly.
2. EBU Members must be present on **new digital platforms** such as the Internet, satellite subscription services, and digital television. Radio can survive and prosper in the short term as an analogue service, because it has clear strengths and value for the public. However, broadcast services that do not make the transition to digital technology will eventually be isolated from their audience. The lack of take-off of stand alone free-to-air digital radio is a cause for concern. The best recourse, for the time being, is for public broadcasters to continue the build-up of new DAB-only content, and to take part in all the digital delivery means that can be used to bring radio content to the public, or can attract listeners to radio.
3. Public broadcasters must form **alliances** with non public service broadcasters, receiver manufactures, retailers, and all other relevant actors in promoting DAB.
4. EBU Members must convince their national regulators that the **provision of adequate spectrum** for digital radio, for existing and new services, is very much in the public interest, and that it is necessary for radio to fulfil the growing demand of new free-to-air radio stations.
5. Because the digital signals are less complex, radio broadcasters will migrate to the IT production environment earlier than television broadcasters. Television broadcasters should follow developments in radio, and learn from the radio experience.

2.8 Key recommendations to managing the digital evolution of public broadcasting companies

Chapter 2 of this report is a short analysis of what is seen as six critical challenges facing the management of public service broadcasters. Below is a compact list of some of the key recommendations. This is not exhaustive, but these messages are among the most vital for public broadcasting management.

1. The most precious commodity of public broadcasters is their **programme content**. Their primary objective, in the multimedia age as ever, must be cost-effective and high-quality programme production. Public service broadcasters need to continue to see their broadcast generalist channels as a mainstay of their public service mission. These must not suffer as a result of distraction into commercial ventures. The new

tools must be used to add value to the core channels, and to develop new services concurrently with the development of the changing pattern of consumption.

2. Public service broadcasters must take steps to ensure that they continue to have access to the finest quality content. This will require concerted action to **secure content rights**. Public broadcasters need to investigate clearly what rights they have for their existing content, and they must anticipate and pre-empt a future environment where some owners of content will be attracted by the prospect of bypassing broadcasters. We need to recognize that there will be more competition for the best. The finest quality content will not just come without asking to public broadcasters in future.
3. Public service broadcasters must develop and establish their **brands**. They must be seen to be, and be in reality, islands of trust and quality in the multimedia environment. This requires concerted and deliberate action. The brand will serve as a mark of distinction across all media tools and delivery platforms. Respect and esteem do not come as a right. They must be earned.
4. Public service broadcasters need to **transform their organisation from single media organisations to multimedia organisations**. Whether a television or a radio organisation or a combined organisation, they need to move to be in the business of 'scalable content'. They need to see the totality of the media tools available, and the totality of delivery platforms, as the basis for their work. This calls for changes in working methods, attitudes, and structures. The Director General must be the first to say "we are now a multimedia organisation". Organisational structure should be focussed around this need. "Put the money on the air and not in administration and internal services".
5. One of the biggest changes that public broadcasters need to make concerns their own internal **human resources**. The new world of digital technology, production by software, and scalable content, call for new skills and new attitudes. Staff must be multi-skilled. Finding the right kind of people for the new environment, and treating existing staff appropriately, is no easy task. It must be done. Technology can be bought. People must be cared for, and led.
6. Use new technology, new formats, and new organisational structures; continue to innovate – but **never, ever take your eye off the people you are there to serve**. Stay close to the viewers and listeners. This is media evolution not revolution. The trick is to go from strength to strength without over-extending, and not run too far ahead of public interest and demand.

Chapter 3

The mission and financing of public service broadcasting in the digital environment

Introduction

There has never been a unique formula for defining Public Service Broadcasting and its mission, neither on a European cross-national level, nor within European countries. In the former days of frequency scarcity and few broadcasters, defining precisely the public service-mission and its borders did not seem critically important - and there was no need to worry about competition rules in relation to its remit and financing.

With the new environment of media plurality, with ever stronger competition for audiences, and the growth of a multinational media-industry, the situation has changed. The traditional public service broadcasting concept, its *raison d'être*, and its ways of financing of activities are in active debate.

Nevertheless, it has not been the purpose of the Digital Strategy Group to set up a single, authoritative definition of public service broadcasting and point out the 'right way' for its future financing. Rather, it is the aim of the report to suggest an approach to describe the remit and funding of public broadcasting in the digital environment, and to point to a range of elements from which national definitions can be developed.

A possible point of departure for describing public service broadcasting is a combination of three central features or elements in a “contract”, bestowed upon a broadcasting institution by society defining the following:

- the *regulatory framework* required for it to produce and distribute the programming by which it fulfils its obligations, and which elaborates,
- its *obligations* to society,
- the method of *financing* its activities.

The three features will be presented as a common frame of reference, upon which specific national definitions and descriptions of public service broadcasting can be built.

3.1 The obligations of Public Service Broadcasting

The central feature of the definition of public broadcasting separating it from its commercial competitors is its obligations to society. Where wholly private media companies work primarily in the interests of their owners, the shareholders, public service broadcasters are obliged to *serve the whole society by enhancing, developing and serving social, political and cultural citizenship*. In doing so they provide media content with the following characteristics:

- *Universality* of content and access
- *Editorial Independence*
- *High quality* of services and of output
- *Accountability*.

Realizing the many differences between the European societies, both from a cultural, political and economic point of view, there is no precise recipe of how these should be achieved. But, in spite of these differences, there is sufficient common ground on a broad European level to present a number of fundamental principles, which can be seen as guidelines for formulating the obligations.

This will be done in the following, by a short description of what is meant by *serving society* and of the *characteristics of the media content*. The obligation of *universal access* has been described in its “delivery aspects” in Chapter 2 of this report: *Managing Digital Evolution* (Section 5). In this Chapter, we will deal principally with the other elements of the cultural and political obligations.

Serving social, political and cultural citizenship

The radio and television channels of public broadcasting can in some ways be considered as the ‘town square or market place’ of modern society. It is one of the few ‘places’ where people gather to learn what is going on in the world they live in. Radio and television are our prime supplier of news as well as entertainment. It is the place where the history of the past is being told, and the music of today is played. No other media has as important an influence on the national languages, music and art, and on the social values of society. That is true for all broadcasting, whether public service or not.

But public service broadcasting has special obligations and purposes. As the international media industry brings universal inclusion into a hybrid global culture, public service broadcasting continues to be dedicated to **supporting national culture**, producing national programme content, supporting national languages, culture, art and music.

Public broadcasters are serving democracy and the political institutions of society by providing a **forum of debate on national issues**, and by being a watchdog of national authorities. To do so, it remains a mainstay of national audio-visual production capability, developing and nourishing talent, with increased ability to achieve these goals across a wider range of programme and other services and content output.

Public broadcasters also know they have to go beyond this to live up to their obligations, by spreading awareness of the additional (both supra- and sub-national) dimensions of political citizenship, as well as individual and societal co-responsibility for developments at these other levels. The public rightly expects ever more in-depth information on the situation prevailing on the international scene and in individual foreign countries, especially other European countries.

The programming of public broadcasters also provides **a forum for international debate** on policy issues, helps develop – and be part of - the international/global public sphere, serves as a watchdog of international bodies and organisations, promotes and defends cultural diversity at the international level. 'Peace broadcasting' and promotion of post-conflict reconciliation are other tasks of public service broadcasting.

At the same time, with globalisation and international integration, people seek stronger roots in communities they can identify with. In response, public service broadcasters are there to provide programming closely attuned to the lives of regional and local communities.

A special obligation to public broadcasters of today's Europe is to reflect our increasingly multi-ethnic and multicultural societies. This must not, on the other hand, take the form of unduly accentuating differences or 'ghettoising' different social and ethnic groups by locking them into 'walled gardens' of programme services, dedicated solely to them.

As mentioned earlier, public broadcasters are not the only broadcasters in the media 'town square and market place' of modern society. To live up to their role in serving society as public institutions, their programming and media content must be characterised by a number of special features: universality, independence, high quality and accountability. This will be discussed in the following sections.

Universality of Content

In the former times of frequency scarcity, public services broadcasters needed to cover all types of programming and genres. There needed to be popular programmes for the general public, as well as programmes which addressed special interests groups. Today, this full scale programming is questioned in some countries, by those trying to push public service broadcasters into a niche of what they see as 'correcting market failure', by only providing programming which is not able to draw large audiences or advertising, and hence make money.

Full scale programming and universality of content is a necessity for public broadcasters to fulfil their obligation to society. All citizens should have the possibility to find programmes on the public channels of their taste and interests. Securing a substantial 'reach' (i.e. a considerable part of those listening to radio or watching television must visit the public service channels) is essential for public service broadcasters, if they are to perform their tasks properly. A broadcaster, whose channels are only used by a minority, is not serving the whole public and not fulfilling its obligations. To retain such a reach, in a landscape with other broadcasters, public broadcasters have to offer popular programming, encompassing entertainment, sports, movies, and so on.

At the same time, to live up to the obligation of universality, public broadcasters should also seek to accommodate special interests which are not met by non public service channels. An example is high quality original programmes for children. Public service broadcasters have the special responsibility for bringing society and its culture to the young audience.

Today, in the new multimedia environment, public service broadcasters do have a role in correcting 'market failure', but this is not related to the provision of genres and programme types which are not available elsewhere. It is the provision of content as free-to-air radio and television, while elsewhere it is offered as Pay-TV.

Public service broadcasting will, in the coming years, while remaining a universal service, go beyond serving everyone at the same time and in the same way. It will have to go where the audience is, i.e. offer both generalist and thematic channels and on-line, interactive and other new services. In the service of the public, and where economical and technical possible, the goal of public broadcasters should be presence on all relevant media platforms.

Universality of content can now be defined in two ways:

- universality of basic supply on generalist channels (including mass-appeal entertainment programming), which will be central to what public service broadcasters offer to the public;
- universality across the full portfolio of services, some of them specialized or tailored for specific audiences, adding up to a more extended and comprehensive range of services.

In its traditional role of promoting societal cohesion, public service broadcasting should assume a responsibility for promoting **digital inclusion**. It must be active in all areas of new multimedia where the audiences will be in the future. Public broadcasters must do so by:

- developing strong and recognizable programme and institutional brands, serving as a beacon for people among the multitude of new content providers;
- being available on all digital platforms, and thus attracting people to gain access to them;
- supporting traditional broadcasting content with Internet and interactive resources;
- providing multimedia interactive services, independent and complimentary web services;
- serving as a trusted party, a reliable and trustworthy guide to content in the online world;
- actively promoting digital media literacy and awareness of the tools of the information society, in particular the use of Internet;
- providing content in local and minority languages in order to encourage minorities to use the tools of the information society;
- promoting open standards in API, CA/CI, etc. (See Chapter 2).

To be able to fulfil these tasks, public service broadcasters must keep pace with the general trend of transition from a 'mass society' to a more 'fragmented society', in which people seek more **personalised services** and products, tailored to their needs. The demand for programme and other services to be delivered to audiences where and when they want must be met.

Audience members also increasingly want to be actively involved in producing the services (including information and cultural ones) they consume. Public service broadcasters are developing ways of accommodating this "individualised communication culture" by using the new technologies to deliver, among other things, a more personalised public service.

Indeed, the increased diversification of the programmes on offer in the new media environment reinforces the importance of the comprehensive mission of public service broadcasters. Public service broadcasting should not aspire to serve all possible niche audiences, but should be able to complement its generalist channels with services offering distinctive specialised content.

Editorial independence

One of the primary feature of public service broadcasting is its independence from undesirable influence by the state or by any political, religious, economic or other interests.

Independence of public broadcasting from influence by the state presents, in some sense, a paradox.

On the one hand the public service institutions and activities are owned by society, whose representatives, parliaments and governments, are entitled to define its remit, set up the rules of governance, and decide its financing.

On the other hand, public broadcasting cannot live up to its obligations as a trustworthy source of information and enlightenment, if it is playing the role of spokesman of government. Independence must therefore be defined as **editorial and economic independence**, securing that programmes and other content are made to serve the whole public, and not special interests. The Council of Europe stressed the importance of this independence in the appendix to its "Recommendation No. R (96) 10, September 1996", with the following statement: *"...The legal framework governing public service broadcasting organisations should clearly stipulate their editorial independence and institutional autonomy, especially in areas such as: the definition of programme schedule, the conception of programmes; the management of financial resources; the preparation and execution of the budget..."*

Developments in several European countries remind us of the need to maintain vigilance in guarding editorial and economic independence, and the need to implement more fully the Council's Recommendation.

High Quality

Public service broadcasters should aspire, in each type of content or service, to constitute a benchmark of high quality. This is all the more important, given the greater profusion of content providers in the digital environment in broadcasting and on the Internet. In addition to delivering the tested and familiar, much of public broadcasting content has always challenged the audience, and extended its taste and knowledge. This should continue and be extended to the new technologies and services.

Yet another aspect of quality can be seen in the fact that most public service broadcasters sustain significant production capacity. They offer the audience new, original, first-run programming developed for the audience and within its cultural context, resonating with themes, characters and references taken from its current circumstances of life. Public service broadcasters should consider provision of such programming as one of their primary tasks.

Accountability

The public service mission is quantifiable in general terms, but not to the last letter. It is possible to make accounts of hours of broadcasting in different programme-categories and genres, and to find whether these statistics are growing or shrinking. But it is much more difficult to measure how good the net benefits of public service broadcasting are - whether they are improving our lives or not. A key attribute of public service broadcasting is ‘*accountability*’.

We need, as far as possible, to specify the public broadcasting mission and the extent to which we are fulfilling the obligations, but at the same time to recognise that this will not be a complete template, and that ultimately it is ‘*accountability*’ which will, in a sense, define the public broadcasting activities.

Public broadcasters need to seek mechanisms for accountability, in a continuous search for feedback and appraisal of what they do. New technology, such as return channels and Internet, may make this process even more effective and convenient.

3.2 Regulating Public Service Broadcasting in the Digital Era

As stated in Section 3.1 (Editorial independence), one of the primary features of public service broadcasting is its editorial and economic independence. This issue has, in all the years of public broadcasting, raised controversial and difficult issues of how Parliaments and Governments should set up the regulatory framework for the public service broadcaster, without being tempted to come too close to influencing the editorial processes and decisions.

The evolution of a purely commercial media sector has also given rise to controversy around regulatory questions. Part of the private sector is, through different channels and in a number of forums, trying to convince governments, parliaments and European institutions to accept that the special regulatory regime should be dismantled.

They also argue that public service broadcasting should not be allowed to change and evolve beyond its traditional technologies and programme formulae. The argument is also occasionally put forward, that public service broadcasting *institutions* are not needed in order to have public service broadcasting.

All in all, the regulation issue has always been, and will continue to be, a controversial one, given the uncertainty about the future shape of the media landscape. Nevertheless all actors on the media-scene are best served with a clear regulatory framework. Legal uncertainty will open endless disputes between public service broadcasting and purely commercial broadcasters. Also, the public must both know what sort of service it is entitled to receive, and be capable of verifying that it is, in fact, being provided.

The regulation can be formulated around two main questions, and a number of more specific issues:

- What kinds of **activities** fall within the public service remit?
- What institutional framework should be used for public service broadcasting services'? Are the public service broadcasting service activities best carried out by **institutions** or can they be distributed to a number of companies?
- Specific regulations concerning *content rights*, *technical standards*, and *competition rules*.

In practice, national authorities can no longer entirely carry out either regulation of public service broadcasting, or any other broadcasting and media activities. The media market is becoming an international one. This makes it necessary to combine national and international regulation.

Public service must cover the full range of programmes, content and services

As already mentioned in Section 3.1 in connection with 'universality', one of the threats to public service broadcasting is the attempt to define it as a 'niche' activity, as a way of redressing what is seen as a particular type of market failure by making available content purely commercial broadcasters cannot provide profitably. Such a narrowly defined public service activity would make it impossible to fulfil the public service obligations described in Section 3.1. Serving social, political and cultural citizenship implies contact with the whole audience, which can only be obtained if the broadcaster operates with a full scale of content and services.

In the digital era, these public service activities must, as mentioned in Section 3.1, also be extended over the full gamut of broadcast, digital and on-line services. This will make it necessary for public service broadcasters to participate in activities across the media value chain, from content-development and production, to channel controlling and to distribution on a range of technical platforms.

Some of these new services and activities could be of a commercial nature. They can, if properly managed, besides providing additional funding, establish a public service-presence in the new territories of multimedia-activity and in all elements of the media value chain. This is necessary if public service broadcasters are to be able to fulfil their obligations to society. There must be due regard for competition and fair-trading issues, and separation between public funded activities and those carried out on a commercial basis.

Public service obligations must be bestowed upon an institution

It is sometimes proposed that the public service role can be separated from the organisations performing it. Another name for this is "*distributed public service*". Here, structural regulation (creation of different types of broadcasters) would be replaced by rules-based interventionism into the programming of different broadcasters, to make sure that elements of the public service are delivered to the public.

There are a number of reasons why such an arrangement would be questionable ineffective:

- The powers of the regulatory body which would control funds with which to commission public service content from different broadcasters would be too extensive. Also, it would be hard to choose between comparable offers from different commercial broadcasters.
- A fragmented public service offering, which is scattered among a number of channels, would diminish the potential of public broadcasting to effect social cohesion and to broadcast a wide range of viewpoints. It would also prove expensive and burdensome, with the viewer having to hunt for content on an increasing number of channels. In the multichannel environment, audiences need strong, recognisable and trusted brands to serve as beacons in a confusing landscape.
- As competition for audiences' time intensifies, there will be pressure on advertising funded or sponsor funded broadcasters who have public service obligations to retreat somewhat from them. In any case, public funding serving merely to cover the cost of broadcasting public service content is unlikely to be an attractive business proposition for them, as it would drive down their advertising revenue. If, on the other hand, a broadcaster undertook to dedicate a whole channel to public service content with public funds, then the situation would be no different from maintaining a public service broadcasting organisation.
- Adoption of the "distributed public service" model would result in a highly unstable situation, with delivery of the public service always at risk, or it would require very much more comprehensive regulation of commercial broadcasting than is now considered justified, acceptable, and workable.

The advantage of internal diversity of content within generalist public service channels is that, assuming a broadcaster can achieve viewer loyalty, the viewer is more likely to receive a more varied diet of programming than if he or she viewed only specialist or entertainment programming. Such channels can offer a wide range of good quality programming across all genres, to a mass audience, and operate both at a cohesive and cultural level.

Today, technology and the market situation creates strong pressures towards a broadcasting industry in which audiences are fragmented but ownership is concentrated. Such a broadcasting industry would find it hard to perform the public service role, even if it declared readiness to undertake it.

There is no room here for a dossier of case studies of alternative media environments, but the particular case of New Zealand is striking. In the early nineties, content obligations were weakened and public service broadcasting institution TVNZ was privatised. Significantly, this decision is now being reversed, because the arrangement did not deliver the public interest. The attempt by the state to 'buy' public service content as and when needed, did not work.

The provision of public service content need not fall solely in-house for the public service broadcasting companies. Indeed today there is widespread outsourcing of content, and some 'quota' systems of 15% – 25% operate. There is everything to be gained by collaboration between public service broadcasters and private production companies. However, this may be more difficult for smaller public service broadcasters, who may miss out on the advantages of critical talent mass, have problems with rights, and have less influence on the other elements of the value chain, which in the digital future will have vital importance.

Public service broadcaster and the EBU

The fact that Europe's public service broadcasters work collectively in the European Broadcasting Union has meant that they are more cost-effective, and need less public funds to do their job. The EBU has been a means for freely sharing creative ideas and technical and legal know-how between public service broadcasters for fifty years. This has considerably enriched what they have been able to offer their national audiences.

The EBU also organises programmes like the European Song Contest which brings Europeans together in popular culture, and there are systematic exchanges of news and sports material. Member organisations with classical music ensembles have an extensive exchange of radio programmes based on recordings of their concerts.

The EBU undertakes many other activities that, in effect, save money for the national public purse, and lead to better programmes for Europe's citizens. The EBU has also been a founding father of several pan-European television channels which were motivated by a common European interest, such as 'Euronews'.

Given that states recognise the value and need for national public service broadcasting, the corollary is that the EBU benefits that process.

Specific regulations and General Development Prospects

Access is not just a matter of a signal being physically available in the airwaves, as mentioned in Chapter 2 of this report. The public is entitled to receive public broadcasting content as a right. This implies that open technical standards need to be used, which should be found in equipment on the open market, and that public service content is available on all significant delivery platforms, as 'must carry' content.

At the same time, the public, if it is obliged by law to contribute to the funding of public service broadcasting, must be entitled to have, and be in a position to have, physical access to public broadcasting content, and it must also be able to find it easily, in a prominent position within Electronic Programme Guides.

In the new multichannel environment, public broadcasters need to be able to use more channels to extend and diversify their programme offer. The regulatory framework should lay down procedures by which new frequencies and/or satellite capacity can be allocated to public service broadcasters. This should include the allocation of one or more multiplexes to public service broadcasters, wherever digital terrestrial broadcasting is introduced.

It is now accepted that public service broadcasting has an important role in bringing to the public the benefits of the new audio-visual and information services and the new technologies, so regulatory frameworks should create no barriers to the use of these technologies by public service broadcasters.

Must-carry provisions should be maintained and extended to other electronic communication networks used for the distribution of radio and television broadcasts. In Recommendation No. R (99) 1 on Measures to Promote Media Pluralism, the Council of Europe Committee of Ministers suggests that must-carry rules could be envisaged, where necessary, for other distribution means and delivery platforms than cable systems. All distribution networks should carry public service television and data channels, on reasonable, non-discriminatory

conditions, with access guarantees, so that digital content financed by the licence fee payer inaccessible on broadband delivery systems. This should not, however, be interpreted as a “must-provide” obligation, under which public service broadcasters must provide their content to every carrier, large and small, significant or not.

In its 2000 Report on Media Pluralism in the Digital Environment, the Council of Europe Group of Specialists on Media Pluralism suggested the mandatory inclusion of certain culturally-relevant 'public service' sites in major web portal sites. These could include those provided by public service broadcasters.

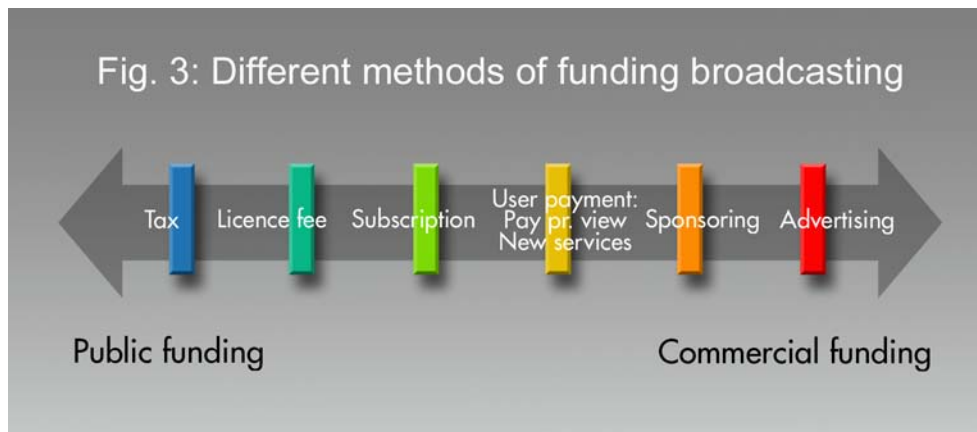
Digital signal distribution may result in the appearance of digital gateways blocking access by public service channels to distributors and gatekeepers, as described in Chapter 2 of this report. These include the conditional access system (CA), the subscriber management system (SMS), electronic programme guides (EPGs) and the application programming interface (API). Such gate keeping functions must be regulated to ensure direct contact between the public broadcasting corporations and viewers, so that the viewers can receive the signals in a simple and reasonable manner.

Many public broadcasters lack the resources in terms of money, manpower and know-how to be active in all elements of the digital world, so one important way of doing this is to enter into alliances, joint-ventures or partnerships with other players. These can cover such areas as EPGs, Internet activities (including portals) and content acquisition. Alliances involving public service broadcasting will necessarily include commercial players. This will give public broadcasting organisations access to all delivery mechanisms within the new digital media environment. The regulatory framework should make that possible. In any event, the guiding principle must be that editorial freedom and independence relative to political and commercial influence must be guaranteed, as well as full transparency.

To meet the challenge of globalisation and the emergence of media conglomerates, but also to help create an international public sphere, public service broadcasters will need to develop forms of international co-operation and programme activities, co-productions, etc. This may involve the creation of international bodies, of which Nordvision (established by the Nordic countries) is an example. More co-operation among EBU Members in the creation and production of programme content should be encouraged. Regulation should not stand in the way of this.

3.3 Financing Public Service Broadcasting

Many European public service broadcasters have traditionally included financing through public funding similar to other public institutions whose services are "public goods", which cannot be financed by the individual user payment. The range of methods of public funding are given in Fig. 3.



Most European public broadcasters are financed at least in part from advertisements. Only in UK and in the Nordic countries are public service broadcasters financed solely by the license fee. A few public service broadcasters are solely financed from advertisements. The new technical possibilities of conditional access (CA), where access of the non-payer to the TV channels can be blocked, opens the opportunity for individual user-based financing, and the service becomes a 'private good'.

Financing through advertisements may, in the future, lose some of its importance, because digital technology will make it possible for the viewer to evade commercials ('ad-skipping via PVR'). However the PVR may also be a benefit to the advertiser if the content is sufficiently compelling for it to warrant recording and re-viewing.

There are many reasons why public broadcasters must look upon the future of funding with concern. There is no dearth of declarations by governments and international organisations that public service broadcasters should have secure and appropriate means necessary for the fulfilment of their missions. However, political reluctance to increase the licence fee, which can be observed in some countries today, may mean that in the long run, public service broadcasting organisations cannot maintain levels and quality of programming.

If states cannot make good on their declarations, or only partly do so, it is essential that public broadcasters be given framework conditions, which make it possible for them to make use of new sources of funding. They must be able to expand their services both to produce products, which support and strengthen the core services, and to make money, provided this does not detract from their ability to perform their tasks fully in line with their remit.

It must be noted that it is not only the public service broadcasters who are under economic stress in these times. The purely commercial media sector is also under economic pressure from several sides. From one side they have (like the public service broadcasters) to meet rising costs stemming from heavy investments in new technology, new distribution platforms, and more content to fill the new larger distribution capacity. From another side comes pressure to limit expenditure due to the lack of the necessary growth in traditional commercial funding elements (advertisements and subscriptions).

Because of the uncertain future of funding, all broadcasters are trying to sustain traditional ways of funding while at the same time developing new ones.

An important point of departure for discussing future financing of public service broadcasting is the acknowledgement that the funding method – i.e. the quantity, kind and source of that funding – influences content.

In general, it seems that financing by broadcasting fee, of at least one national public service broadcaster, best contributes to meeting public service objectives. If this is not the case, important types of programmes (seen in a public service perspective) will be less readily produced – or not delivered free on universally accessible channels. By contrast, total dependence on advertising revenue (which can be highly volatile, jeopardising the broadcaster's finances) can lead the broadcaster to sacrifice distinctiveness in order to secure adequate income, unless there are appropriate regulatory safeguards.

The future of public funding for public service broadcasting

Besides the above-mentioned difficulty of financing broadcasting via a user base, public funding has also been a basic funding method for cultural and political reasons. By using collective financing it has been possible to secure the admittance by all individuals in society (rich and poor) to the content of public service broadcast. This is a reason why most European countries uphold a collective funding model for public broadcasting, where public funding (the licence fee) is predominant in combination with income from advertising.

The freedom of each state to set up and organise the public broadcasting system and to provide for the funding of that public service, including mixed funding, is now accepted. It is also now recognised by the European Union that while public funding of broadcasting to a certain extent may influence the market, such influence on the market must be accepted “insofar as such funding does not affect trading conditions and competition to an extent which would be contrary to the common interests, while the realisation of the public service remit shall be taken into account”, to quote the Amsterdam Protocol.

There are no technical or regulatory reasons why the broadcasting fee system cannot be maintained in the future. However, broadcasting fee revenue, while usually stable and predictable (though many countries have to deal with growing evasion rates) is static, with a very limited potential for growth (the number of radio/television households is no longer increasing significantly). This is why it is important to establish and gain acceptance for the practice of indexing the fee.

The political and social acceptance of the broadcasting fees may decrease over time. In addition, new digital receiver equipment might, in the long run, make collecting traditional broadcasting fee payment based on the possession of a radio and/or television receiver problematical. In the longer term, erosion of the channel concept, especially on TV, and the spread of EPGs, may exacerbate the problem. This may create the need for a system of licence fee collecting which is not related to the television set itself but to the terminal providing access to the public service programming.

In some countries, the collection of the public broadcasting fee is organised through other ways of collecting public funding, for instance via the electricity bill. In the Netherlands, authorities have replaced the broadcasting fee by a central government contribution to public service broadcasting, which is part of the general central government budget. This contribution is financed by a special levy as a supplement to income tax. The amount of tax money earmarked for the Dutch public service broadcasters is indexed, and cannot be used for another purpose. Since the basis (possession of a radio or television set) has now been replaced by an individual tax duty, exemptions for individual citizens are no longer possible.

If finance is provided by a tax model, it should be done in a way which fixes the public contribution in advance over a period of years, so as to minimize the possible threat to the broadcasters' editorial independence, while providing, at the same time, the necessary medium and long term planning capacity.

Although the Dutch system has worked satisfactorily, the direct state financing of the 'tax model' can, in theory, have drawbacks. Governments can, through direct financial control via tax-financing, be encouraged to adopt a more interventionist approach of interfering with the programming of public service broadcasting.

Advertising, sponsoring, etc.

As already mentioned above, there are signs that the business model of advertising-financing free-to-air channels may in the future be threatened by the introduction and proliferation of new digital techniques, making 'ad-skipping' technically possible. It is also a problem that, after a period with considerable growth in the European radio and television advertising markets, there may be very limited potential for a further growth, which can meet rising costs in the electronic media industry.

This may be one of the reasons why it has been international media companies who have been the driving forces in developing digital satellite television distribution, and the creation of the gatekeeper function with electronic programme guides (EPGs) and subscriber management systems (SMS). Traditionally, it has been the public broadcasters who have spearheaded new technology, because they can, thanks to the public funding, run new distribution systems in a start up period until the audience rises. The international media companies see the new digital services as new source of revenue and therefore have been in the forefront of developing new business models in television broadcasting based on the digital technology.

Another option is to move the advertisement away from flow-disrupting commercials, and to insert them directly in the programs, effectively as subliminal promotions of products.

Sponsoring can be seen as a special type of advertising. Although it can sometimes be difficult to see the difference between sponsoring and conventional advertising, one characteristic of the former is the element of corporate branding, promoting the sponsoring firm rather than a special product. Some public broadcasting companies have rules regulating their sponsoring activities. They may face difficulties in the coming years, where the acquisition of important rights is more and more attached to a sponsor element.

Individual user oriented payment

As mentioned in the beginning of Section 3.3, an important reason why broadcasting in Europe originally was collectively financed was its 'public goods' character. The programmes were broadcast over the air and everyone could access them. There has also been – and still is – a cultural and welfare reason behind the collective funding of public service broadcasting. It is important for every citizen to be able to receive the programmes irrespective of income differences, and this is a policy in line with the universality principle of free-to-air public service broadcasting.

With the introduction of radio and television broadcasting through cable and via satellite, and with the use of encryption techniques, it became technically possible to differentiate between payers and non-payers. This opened up the prospect of broadcasting **subscription channels**. This created the revenue model for thematic channels directed towards (and paid by) viewers in special interest groups, typically films, sport, children, different hobbies, etc.

The new delivery systems combined with encryption have also made it possible to market user-based payment for the single programme, **pay per view (PPV)**, where the viewer pays for viewing a football match or a movie. Digital technology will, in future, lead to the introduction of even more individual user-based payment systems, not only for single programmes, but also for a wide range of new services. This development matches the growing importance of individualisation and personalisation of the programme-content, and the way it will be used in the digital, multimedia, future (see Chapter 1 and Section 2.2 in this report). This development towards a more individual oriented user based payment system will probably, in the long run, result in fundamental changes in the flow of finance along the media value chain and the distribution of funding.

Today, most financing in the audio-visual industry flows through the programme 'packagers'. In the future it is expected that the gatekeepers (aggregators and access providers) will become the main beneficiaries of subscription revenues, and will also attract some advertising revenues and payments for new services (for access to information, individual communication, and net-shopping etc.). Aggregators and access providers will buy content from rights holders and content producers, and will pay networks for their distribution infrastructure.

As this process unfolds, the current public funding mechanism that allocates funds for the largest part to programme packagers may be re-oriented to shifting public funds towards other stakeholders of the value chain (mainly the content producers). There is a risk that this may unconsciously draw society to the "distributed public service" model described in Section 3.2.

The future funding of public service broadcasting

Looking at these developments from a public service broadcasting point of view it is easier to raise questions than to come up with answers and solutions.

Realising the developments in the market (multi-media, and the change in the media value chain) public broadcasters cannot, in the long run, avoid co-operation with commercial companies performing gate-keeping functions. Thus, it may be more and more difficult to separate public broadcasting from the wholly commercial market and its sources of financing, and to draw a clear line between commercial and non-commercial activities.

Within the European Union there have been concerns about the compatibility of public funding of public service broadcasters with State Aid principles, as well as for proportionality and transparency of this funding. In the ‘Communication from the Commission on the application of State aid rules to public service broadcasting’ (15.11.2001 – 2001/C 320/04) it is stated that public funding is in accordance with EU regulation as long as it meets a number of criteria, including:

- whether an official definition of the public service remit exists;
- whether this definition does not extend the scope of the public service remit to include activities that cannot constitute public service activities;
- whether a given undertaking has been entrusted, by means of an official act, with the performance of that remit, and
- whether there exists a control mechanism, by means of an independent body, in order to ensure that the public service mandate is actually performed by the entrusted undertaking.

A difficult – but important – question is how to make the distinction between 'public service activities' and those, which are not. Such a distinction shall be based on the (national) definition of public service broadcasting remit (dealt with in Section 3.1 of this report) and is a separate issue to the way of financing the activities in question.

A number of "new services" (including those funded by individual user payment) might very well be considered as public service, as long as they fall within borders of the public service remit. But, publicly funded broadcasters might also carry out activities outside the public service remit, and finance them on a commercial basis. Rules of competition and the need of transparency makes it critical to separate accounts both on the revenue side (where does the money come from) and on the expenditure side (in which field of activity are they used).

Although there has been some positive clarifications in the guidelines drawn up by the European Commission, the public service broadcasters will probably, for a long period, have to live with a considerably uncertainty in the financial field. This is not only because of any legal and regulatory battle with commercial competitors, or due to a declining political willingness to sustain public funding, but also because leaving the safe world of public funding and the traditional broadcasting of radio and television channels, and moving out on the open marketplace to join up with commercial gatekeepers in offering a wide range of new services, is a difficult route to follow. But it there is no alternative way to go, if public service broadcasting is to fulfil its obligations to society in the digital future.

If there is, however, a fundamental basis for public service broadcasting, which sets it apart from purely commercial broadcasting, it is that public service broadcasting uses money to make programmes and provide public services, and not the other way around. This must be the fundamental guiding principle.

APPENDIX 1

Members of the EBU Digital Strategy Group

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Mr Stefano Ciccotti		RAI	Italy
Mr Bert De Graeve		VRT	Belgium
Mr Xavier Drumare		GRF/FT	France
Mr Karol Jakubowicz		PRT/TVP	Poland
Mr Matteo Maggiore		BBC	Belgium
Mr Jose Manuel Nunes		RDP	Portugal
Mr Andreas Weiss		ARD	Germany

Ex officio

Mr Philippe Belingard		GRF/FT2/FT3	France
Mr Bob Collins		RTE	Ireland
Mr Nicholas Kenyon		BBC	United Kingdom
Mr Daniel Sauvet-Goichon		GRF/TDF	France
Mr Jean Stock		EBU Secretary General	Switzerland
Ms Raina Konstantinova		EBU Radio Department	Switzerland
Mr Bjorn Erichsen		EBU Television Department	Switzerland
Mr Stefan Kürten		EBU TV Operations Department	Switzerland
Mr Philip Laven		EBU Technical Department	Switzerland
Mr Werner Rumphorst		EBU Legal Department	Switzerland

Additional participation from

Mr Felix Bollmann		SRG SSR idée suisse	Switzerland
Mr Knud Ebbesen		DR	Denmark
Mr David Levy		BBC	United Kingdom
Mrs Anne-Lieke Mol		NOS	The Netherlands
Mr Svein Prestvik		NRK	Norway
Mr Gerrit Wolffensperger		NOS	The Netherlands
Mr Jean-Bernard Münch		EBU Former Secretary General	Switzerland
Mr Gaetano Stucchi		EBU Television Department	Switzerland
Mr Philippe Jacot		EBU Television Department	Switzerland
Mr David Wood	<i>Secretary</i>	EBU	Switzerland

APPENDIX 2

Background papers on issues discussed in the report

Chapter 2

1. [Future programme content for public service broadcasters in a multimedia environment](#)
Svein Prestvik, NRK
2. [Future availability of rights to traditional core programming content](#)
Werner Rumphorst, EBU
3. [How should public service broadcasters handle the migration from analogue to digital production equipment and infrastructure?](#)
Daniel Sauvet-Goichon, TDF and Philip Laven, EBU
4. [How should public service broadcasters be \(re-\) organised in the multimedia future?](#)
Christian S. Nissen, DR
5. [Radio and multimedia: are we heading for new business models?](#)
Felix Bollmann, SRG SSR idée suisse

Chapter 3

6. [The mission and financing of public service broadcasting in the digital environment](#)
Karol Jakubowicz, Polish TV

APPENDIX 3

Current EBU activities which relate to the work of the Digital Strategy Group

(Please note that the EBU web-site is currently being reviewed
and the addresses below may change)

EBU Legal Committee

http://www.ebu.ch/departments/legal/activities/legal_committee.php

EBU Radio Committee

<http://www.ebu.ch/departments/radio/index.php>

EBU Television Programme Committee

<http://www.ebu.ch/departments/television/activities/index.php>

EBU Technical Committee

<http://www.ebu.ch/departments/technical/>

EBU Strategic Information Service

<http://www.ebu.ch/SIS/index.php>

EBU New Media Group

<http://www.ebu.ch/multimedia/organisation/nmg.php>

EBU On Line Services Group

<http://www.ebu.ch/multimedia/organisation/ols.php>