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A new model of environmental communication for Europe: from consumption to use of information

Executive summary

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Contents

Introduction	4
Supply and demand of environmental information	5
Deficiencies in the current model of information exchange	9
An alternative model	13
Conclusions and recommendations	17

Introduction

This report deals with the changes that should be made in the current environmental communication model so that information can become a real tool in understanding environmental problems and can be used as a means to orient decision-making towards their solution, leading to action towards sustainability. The transition to a new communication model is described as a process that transforms information from passive to active mode, changing its content, thus requiring the development of a new and different representation of knowledge to facilitate its understanding.

An alternative model of environmental information exchange in Europe is then put forward. This new model is based on interactivity, participation, plurality of sources and opinions, different representations of reality, and elimination of space, time and variability constrictions, the final objective being the transformation of consumption information into information which can be put to practical use. This model can be characterised by three basic aspects:

- Use of the new technological supports
- A new and different representation of knowledge
- A review of the contents offered to society.

Supply and demand of environmental information

Based on the information and results obtained from several studies of the analysis of media coverage and practices, as well as a survey of European environmental journalists, together with data provided by the European Environment Agency, the characteristics and deficiencies of both supply and demand of environmental information at European level can be described as follows:

- Environmental information still represents only a small percentage of the total information in the media, when compared with other types of coverage such as sport, economic issues or politics. The *Environmental Barometer* used by the *Centre of Environmental Information Studies (Centro de Estudios de Información Ambiental — CEIA)* between October 1997 and June 1998, based on the daily study of 10 Spanish newspapers, showed that the average space devoted to environmental issues in those newspapers over the nine month period was 2.3%, with a variation of 0.7.

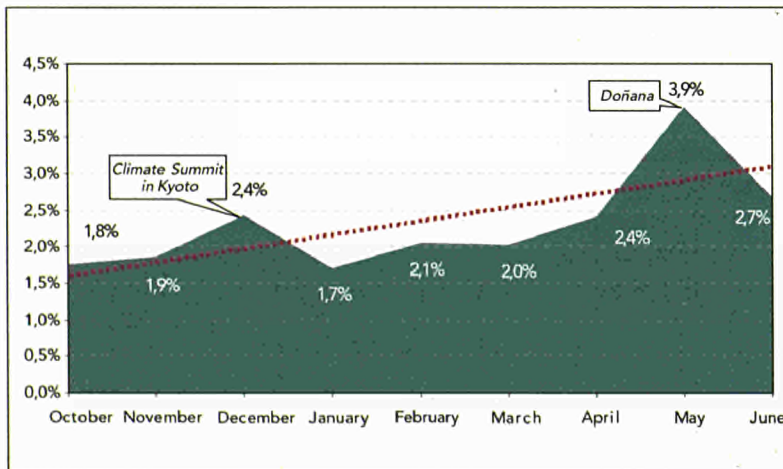


Figure 1

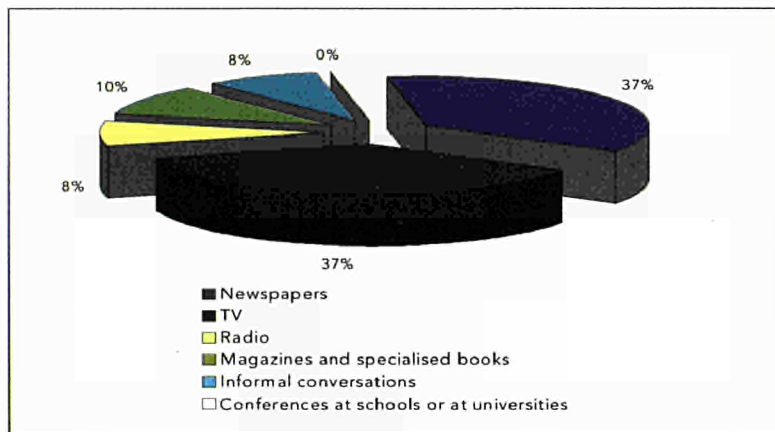
Source: Butlletín n°9, September 1998. Barcelona: CEIA

- There is no agreement among environmental journalists as to why environmental news and information is so scarce. Among the various reasons put forward by them are: the

difficulty in understanding environmental information; the nature of the information – that it tends to be depressive; the fear of the media companies that they might lose readers and audiences rather than improving quality; the fact that people find themselves unable to do anything in this regard, and the fact that many editors are not sufficiently au fait with the subject.

- Sources generally used by specialist journalists are institutional. While the scientific sector, industry and Non-Governmental Organisations play a much smaller role.
- As a general rule, there is a tendency among environmental journalists to deal only with the political angles of environmental stories.
- Non-Governmental Organisations are the main sources of environmental information, according to 40% of the European environmental communicators who responded to the survey of the CEIA. Environmental journalists come second in influencing environmental information production, according to 27% of the respondents. A further 16% consider governmental organisations as the greater producers of environmental information. 13%, nevertheless, think that newspaper publishers and TV are prevalent in this regard. Only 4% believe that industries and private companies are the most influential in the production of this type of information.
- Written media originates most of the volume of environmental information transmitted to the public. However, the audio-visual media, especially TV, has a greater impact on the European population.
- While newspapers are considered as the main environmental information transmitters, at the same time they are perceived as the worst in terms of the quality of this information. On the other hand, specialist magazines are considered as offering the better and more credible environmental information.

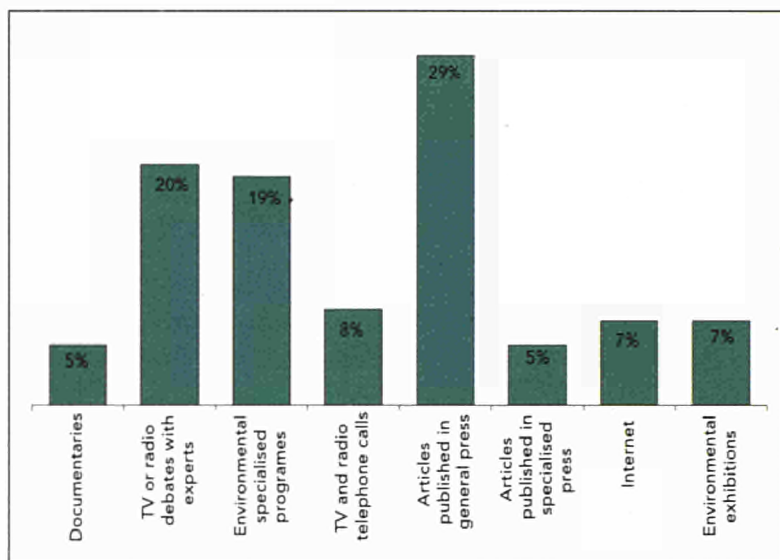
Figure 2



Source: Data extracted from a survey performed by the CEIA to environmental journalists

- While newspapers are considered as the main environmental information transmitters, at the same time they are perceived as the worst in terms of the quality of this information. On the other hand, specialist magazines are considered as offering the better and more credible environmental information.
- Journalists are barely aware of the potential of the Internet in their jobs. The majority continues to believe their efforts should be directed towards increasing the number of environmental articles in the general press, increasing the number of discussions with experts on television or radio, and increasing the number of specialised programmes.
- By contrast, statistics from the *European Environment Agency (EEA)* on the routes chosen for information requests put the Internet in first place.

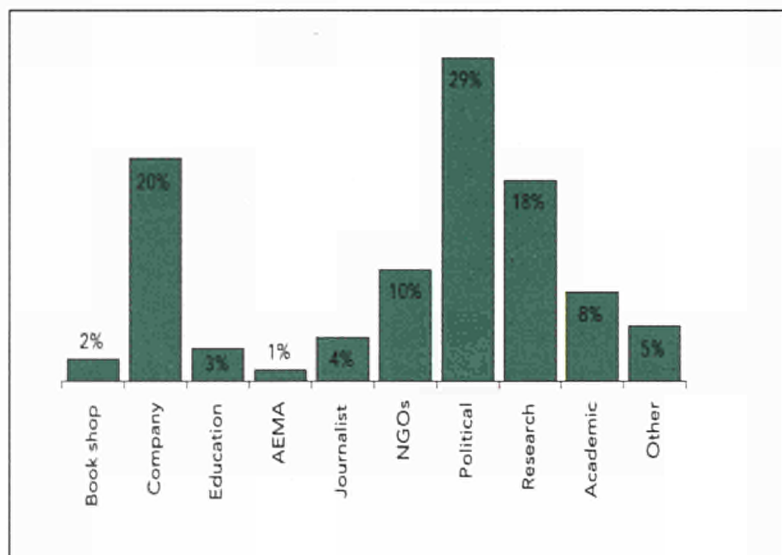
Figure 3: Which type of media should be promoted as the main communication route for environmental information?



Source: Data extracted from a survey performed by the CEIA to environmental journalists.

- Between May-August 1998 the EEA had requests for information on environmental topics from various types of groups. The most requests came from people involved in politics, followed by companies, researchers and academic groups. Only 4% were journalists.

Figure 4: Nature of EEA's clients between May-August 1998



Source: Information of the statistics reports generated by the EEA Information Centre for May, June, July and August of 1998.

Deficiencies in the current model of information exchange

Main characteristics of the traditional model

An analysis of the supply and demand of environmental information provides a picture of some of the basic characteristics and deficiencies of the traditional model of environmental communication in Europe. These are summarised as follows:

- Environmental information still represents a very small percentage of the total amount of information offered by the media. However, the environmental problem does not rely on the lack of environmental information as much as on the need to channel it through appropriate means, as has been demonstrated through the analysis of the treatment of environmental issues by the written media.
- Specialist journalists depend largely on institutional sources for their information. The scientific community plays a secondary role in supplying this information, as do the private sector and Non-Governmental Organisations.
- Characteristic tools of journalism (multimedia tools and electronic networks) are hardly used by journalists who cover environmental issues.
- The journalistic routines and the criteria used for specialist environmental coverage in newspapers limit the practice of other types of specialist journalists who approach the complexity of environmental problems from an integrative and interactive way, and who consider intervention and participation of all the social groups involved in the news.
- Most of the environmental information transmitted to the public appears in the written media. However, the audio-visual media is considered to have more impact. At the same time, though newspapers are considered the greater environmental information transmitters, they are also given less credibility in terms of the quality of that information. Still, studies and surveys demonstrate that they achieve

more credibility with the public than they really deserve, given their deficiencies and limitations. On the other hand, specialist magazines are seen as offering better and more credible environmental coverage.

- Some of the significant limitations of the current communication model are related to the space and time limitations that separate the journalist from the news. These time and space limitations result in information being transmitted in a fragmented and partial manner, since journalists must in many instances interpret the facts or data through others who are closer to the news.
- Information has to be plural, participatory and action-inductive. Sometimes this requires generating the news at a local level whereas, currently, environmental information is mainly offered at national level.

Conditions affecting current environmental media

Difficulties in communicating environmental issues stem both from the content/format and the type of media used, as well as from the complex and uncertain nature of this type of information. In order to reach the public, media environmental messages need to be 'competitive'. Media competes for time, space and financial resources as well as for audiences. The ability to gain competitive marginal differences decides the inclusion of certain news in the mainstream media. The present rigid format of the media also constrains adequate coverage of environmental information. The need for brevity, the lack of regular space or time-slots and the search for stories that will impact on audiences reduce the scope of environmental mass information to a very small number of issues. In order to sustain interest and keep audiences large, environmental information needs to be presented in attractive, identifiable and entertaining formats.

Most environmental problems are rarely new. The ordinary, daily and unnoticeable nature of current environmental problems means that their causes, consequences and possible

options for action are unlikely to be mass communicated. On the other hand, lack of time usually leads journalists to use the most formal, standard and institutional sources of information, which characteristically also tend to be the most conservative. Therefore, little social impact or feedback is expected: it is assumed that the sole function of environmental information is merely to inform, not to stimulate participation or positive reactions from the receivers.

Under present conditions, both the content and format of mass communication on environmental and sustainability issues make it impossible for different audiences to understand this information and even less possible for them to express their views on the subjects that should be most urgently communicated. Because few references to the causes are given, little context is provided to understand or to identify with the information provided.

Language and labels of environmental information

When information is released to the media, it should be supported by other elements such as graphics, images, video and audio. Hyper-medial and hyper-textual messages allow journalists to simplify their stories by linking them to broader pieces of information. Audio-visual elements accompanying texts bring an attractive and more intuitive dimension to a piece of news.

A new and different process of labelling and presenting environment information needs to be developed in the form of new languages and innovative communication methodologies.

Sources, audiences and the media: the need for interactivity

The effects of the media on audiences are never linear but are interdependent: the media affects audiences *and* audiences affect the media. However, this relationship is not symmetrical; audiences can rarely adopt adynamically active

position to the information they receive. The decision about whether to include a given story depends more on corporate media decisions and market pressures than on the reaction of the audiences. Audiences are mere consumers of media products, not producers. And, by the same token, they can hardly become users.

At present, many mass media companies have web sites, electronic mail addresses and other interactive means of communication through which audiences can express their preferences on the content and form of the content/ programmes offered. But even though the high impact of the digital versions of some media has already been proven and measured, media companies have not really made any effort to be innovative or original, and have only adapted the Internet to the one-linear model of traditional press or television, instead of using this new medium to experiment.

An alternative model

The role of information in sustainability

Improvements in the content and presentation of *economic, institutional and ecological* information are essential if there is to be any advance towards sustainability via strategies that allow the reduction in the need for energy and resources by transforming information into powerful knowledge, that is to say, going from information for consumption to information for use.

Key elements of mass environmental information

Some of the significant limitations of the current model of environmental communication relate to the space and time distances between journalists and the news, resulting in partial and fractional understanding. To assure the quality of the environmental information they receive, journalists need to be close to the event, close to decision-making.

An alternative model of environmental information exchange needs to eliminate time and space barriers between suppliers and demanders of information, i.e. between communicators, sources and audiences.

Therefore, methodologies must be developed to ensure that the necessary amount of environmental information is effectively channelled, using hyper-textual and hyper-medial languages to eliminate the space, time and variability constraints imposed upon information by traditional communication models.

Designing a new communication model from telecommunication networks would entail modifying the function of journalists by also empowering the other social agents to participate in the generation and transmission of the news. Through an interactive process, audiences, sources and information professionals can meet and react to an event, processing and interpreting news/information from their different perspectives.

Converting information for consumption into information for use, and thus into knowledge leading to action, means developing participatory models of environmental information exchange.

The alternative model

The alternative model must be oriented towards social innovation, that is to say, towards the creation of new systems and platforms that confer a useful value on information rather than for mere consumption. In other words, environmental information must be supplied on the basis that it can be used. Advancing towards this model means linking information to options, and contexts to action, as well as involving all the social agents (communicators, the public and decision-makers) in the generation and transmission processes of environmental information. These assumptions have led us to define an alternative model of environmental information exchange as the integration of three basic practices:

- **Use of the new technological supports**

Only through the use of telecommunication networks can communication adopt the potential of interactivity, hypertextuality, multiplicity and participation of all the social participants, and at the same time introduce innovation in the way information is presented.

In the new model, communication is found in the form of virtual communities, newsgroups, electronic information platforms, telematic networks or digital systems where all the actors of environmental information meet, interact and participate to generate and transmit information that responds to their needs and induces action-taking.

- **A new and different representation of knowledge**

An alternative communication model should seek to integrate different strategies from different institutions through interactive, open, interpersonal and democratic procedures between producers and consumers of information. These could help individuals and social groups define and express more closely what sustainability

and environmental information means to them in their own personal contexts.

Efforts must not be oriented towards increasing levels of information, but towards social innovation, that is, towards development of systems and platforms that display options for action and demonstrate the existence of opportunities for substantial change and engagement. New communication systems should aim to fuse expert and lay knowledge in different contexts and to understand the assumptions, language and the logical frames of a plurality of social groups and institutions. They ought to integrate the plurality of ideas and expressive strategies of different audiences and sources by a cross-incorporation of the formal and non-formal, telematic and open networks.

- **A review of the contents offered to society**

One of the most important ways the integration of environmental information could take place would be through the development of new professions and institutions that would perform – in different ways but at the same time – the task of journalists, public educators and others in ‘environmental social work’. They could make possible the translation of complex information into intelligible, discussible and attractive issues and provide the time and the human and technical resources to guarantee a rich, evaluative and participatory feedback from the audiences to each of the original information sources. By proceeding in this way, mass environmental information might increase its chances of becoming practical knowledge for the environment and sustainability.

Some initiatives testing the new communication model

Several initiatives have emerged to test the potential of the new environmental communication model. This report describes and analyses three that seem to particularly fit the expectations and ideas expressed so far:

- **The Global City Platform (GCP)** is an interactive information system that gathers data on the reality and the functioning of a local authority in the environmental,

urban, social, economic and agricultural/natural areas, displays them on a territorial basis and allows analysis. The GCP is based on the latest information technologies (Geographic Information Systems and Internet) as the support to display information in an innovative way. It facilitates information access, query and analysis and stimulates the participation of different social participants in its elaboration, interpretation and transmission. GCP has been developed in a two-year project carried out by the *Centre of Environmental Information Studies* with the support of the LIFE Programme of the European Union.

- The **Association for the Progress of Communications (APC)** is a global network with more than 20 international network members. Its mission is to provide support to the initiatives of organisations, social bodies and individuals in the use of information and communication technologies to achieve sustainable societies.
- The **Earth Negotiations Bulletin (ENB)** (and other actions related to it), produced by the **International Institute of Sustainable Development (IISD)**, is an independent information service providing daily coverage of negotiations and developments in the environmental area at United Nations level.

Conclusions and recommendations

While the amount and diversity of environmental media products, information services and computer capacity for processing environmental data have increased exponentially during the last decade, this development has not been accompanied by a parallel progression in research and development of innovative and original methodologies to present and transmit environmental information. Little or no work has been done towards the creation of systems and platforms to put information to use rather than for mere consumption. Only by doing the latter and linking information to options that lead to action will society be empowered to work towards sustainability.

Time and interactivity are necessary to obtain feedback from audiences so that it can be sent back to source in a manner that can affect the next stage in the production of information. Nevertheless, timely information on sustainability, environmental and potential large-scale risks will have to be mass-provided urgently, or at least *before* it is too late, to prevent irreversible processes that could be avoided at this stage. Time, space and interactivity constraints to environmental information can be minimised through the use of information technologies as a support for a new model of environmental communication.

The political will and the allocation of sufficient resources are essential to create the conditions for an integrated mass environmental communication system which could contribute to sustainability. New efforts should not be directed towards reinforcing current media corporations and professions but towards creating new communication systems that ensure the provision of *understandable information* on sustainability and environmental quality issues for a plurality of audiences, in a participatory and interactive context.

Some possible lines of action

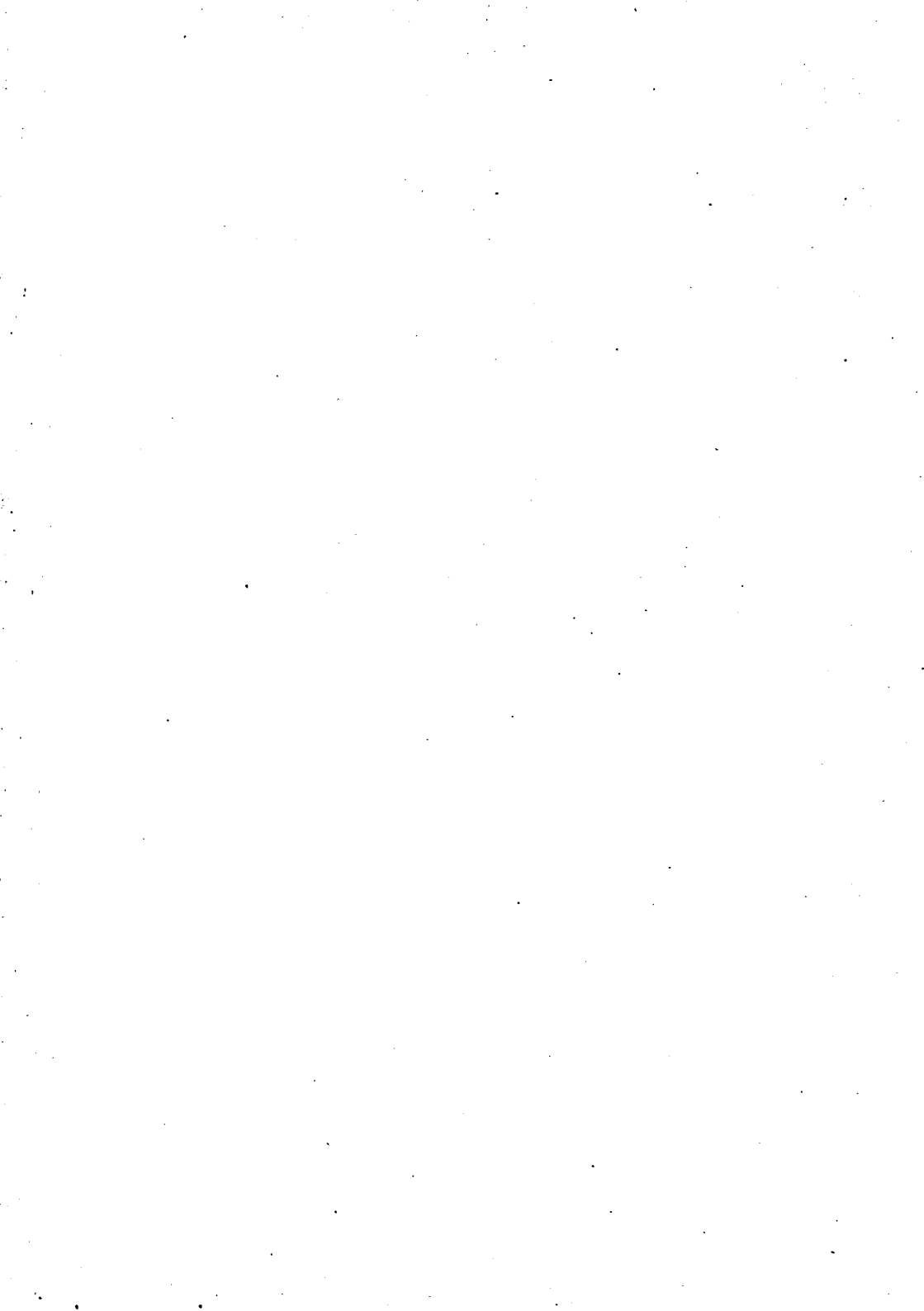
Some strategies can help the public, with its increasing social awareness, to use, rather than merely consume, environmental information, thus encouraging and enabling

people to participate, make decisions and then act towards sustainable development. In particular:

- Conceiving, designing and creating 'media laboratories' which study, develop, test and implement new communicative methodologies that fit the requirements of the alternative model of environmental information exchange described in this study. These 'media labs' should work mainly at local level, since it is at this level that information is better understood and action is principally taken. Therefore, these environmental communication research centres should be integrated in the appropriate institutions at European level and co-ordinated by general research directives and objectives set by a European institution.
- Developing, probably through the 'media labs', appropriate and innovative social communication methodologies which allow the translation of complex environmental data about global and regional processes into intelligible language and plain formats in order to make them easily understood by people in their local contexts.
- Promoting the use of New Information Technologies and specialist media products on sustainability and environmental issues while making them more accessible to the public. These technologies play an important role in the definition of a new and more effective environmental communication model.
- Building and promoting, particularly through the use of the above mentioned technologies, regular forums for discussion, assessment and dissemination of environmental information between the formal and non-formal sectors of society. In particular, the aim would be to facilitate communication between public agencies, private companies and non-governmental groups, as well as among non-organised interests. Information should be shared among a plurality of economic, political and social agencies.
- Publishing local and regional directories on environmental human resources. The creation and maintenance of

accessible national lists of professionals working in the field of environmental information and communication would improve their training and working conditions.





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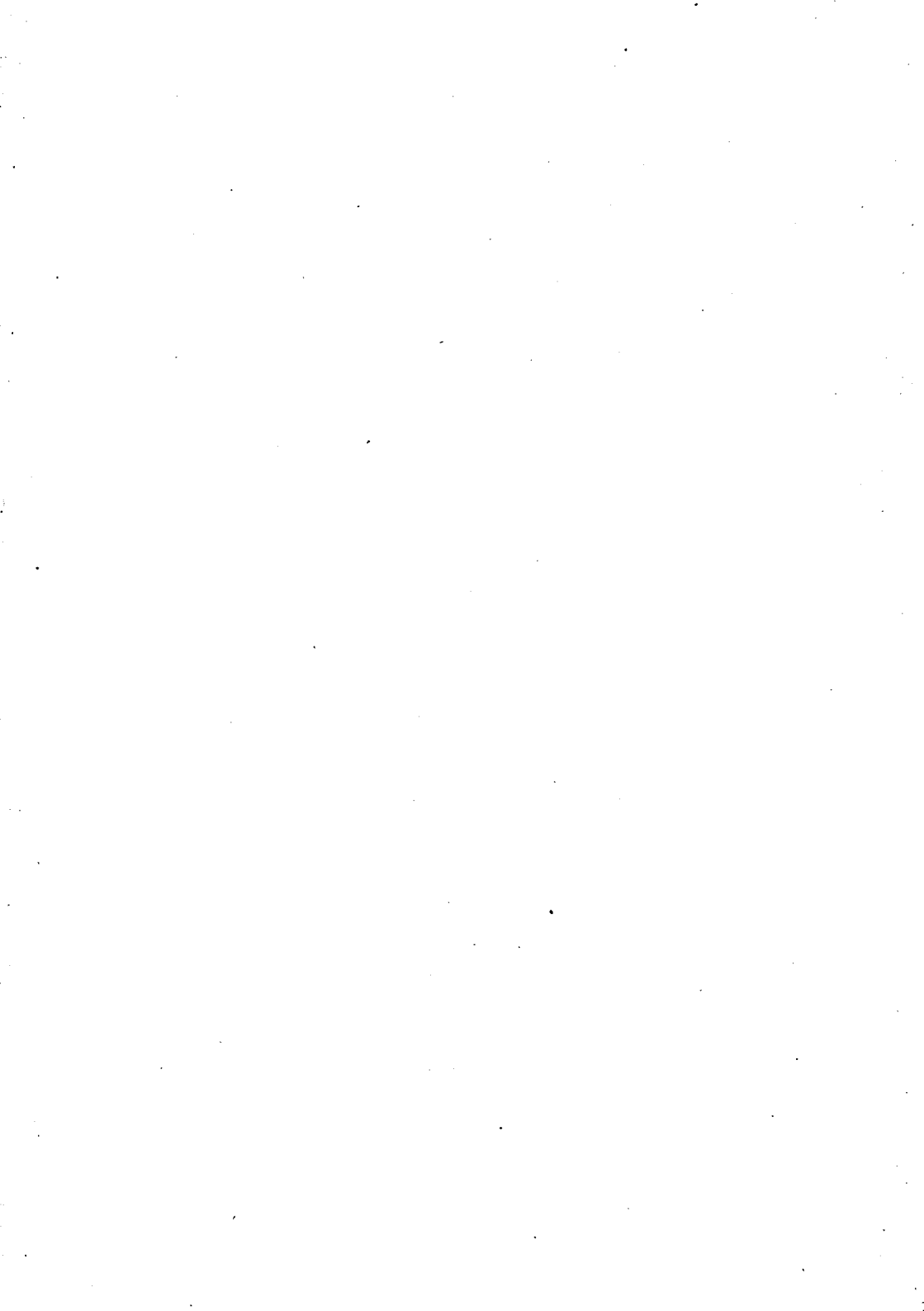
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