Preface

The liberalisation in the telecommunication market and thus the advent of competition has had a tremendous impact on business in this area. New operators have started to offer telecommunication services in competition with the classical national network operators. This in turn will have an impact on the market share, the tariff structure, the Quality of Service (QoS) and the services offered to the end customers.

A way to maintain or increase revenue for network operators is to additionally offer new services to the customers. The final target is a so-called "Full Service Network (FSN)", which is capable of offering all types of bi-directional multimedia services.

The provisioning of new telecommunication services in general and new multimedia services in particular is made possible by the availability of several new technologies as well as through advances in standardisation. R&D policies world-wide but especially in Europe have forced the development of new networking technologies such as ATM, xDSL and HFC as well as new video technologies as defined by DVB and DAVIC.

At the application level, recent developments include Internet telephony, Web-TV and the growing use of images and video components in Internet and Intranet environments. The major questions that remain include the nature of the convergence, i.e. the multimedia applications and services based on the new enabling technologies; and the pace of convergence, i.e. the speed with which a new generation of integrated networks will emerge, resulting in new networking infrastructures on which the new multimedia applications and services bring new possibilities to the end customers. ECMAST'99, organised by ACTS and COST 264, is focusing on exactly these issues.

The European Commission ACTS Programme and the new COST 264 Action are initiatives that promote research and development activities on multimedia applications, services and techniques. The ECMAST conference is a recurrent event promoted by the European Commission (Directorate General XIII B) aimed at disseminating the results of research and development projects on multimedia communication and related activities being carried out in Europe and elsewhere.

ECMAST'99 is the first world-wide forum on the new multimedia era of technologies, services and applications which presents the global results of the Fourth Framework Programme of European Research. It is also a starting point for the new Information Society Technologies (IST) Programme of the European Commission under its Fifth Framework Programme.

The ECMAST'99 call for papers resulted in 87 submissions. Following a stringent reviewing process, the programme committee selected 37 technical papers to be presented at the conference. In addition, several authors have accepted the invitation to present their project results at a poster/demo session. These technical presentations in combination with the keynote talks (Narciso García, UPM, ES and Georg Lütteke,

PHILIPS EACEM, D) provide an insight into the current state of the art in multimedia applications, services and techniques.

The keynote speech of Bill St Arnaud of CANARIE, entitled "The future of the Internet is not multimedia", and the panel session chaired by Bob Foster of BT to discuss the question "Is there a multimedia business for network and service operators?" will couple research work with the business potential in this area. Three tutorials to be held before the start of the conference complete the programme of ECMAST'99.

On behalf of the programme committee we would like to thank all the authors for their contributions which were of course the prerequisite for the high technical level of the conference. Equally, we would like to thank the reviewers for their excellent and hard work and for meeting the tight time schedule. Special thanks are due to the members of the steering committee, the members of the programme committee and of course also the members of the organising committee, amongst whom an extra special vote of thanks goes to José Antonio Guerra (HISPASAT) who made a tremendous contribution to the organisation of this conference.

We thank the European Commission, where the ACTS projects and the COST 264 community have formed the basis for much technical content as well as the organisational aspects of the conference. The secretary of the steering committee, Leon Van Noorden of EC DG XIII B, deserves special mention because of his invaluable contribution to the successful establishment of this conference. We also wish to acknowledge the financial support of the European Commission, which is an important stimulus for such an event.

April 1999 Helmut Leopold and Narciso García

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