

# Preface

*“At present, the transition to inter-active trans-European networks and services is being held up by the fragmentation of markets, by insufficient interconnection and **interoperability** and by the absence of mechanisms to ensure **coherent management**.”*

*White Paper - “Growth, Competitiveness, Employment:  
The Challenges and Ways Forward into the 21st Century”*

**T**he adequate management of telecommunications assets is indeed fundamental to support the widespread deployment of new telecommunications services throughout Europe. In this context, the RACE project R2059, Integrated Communications Management (ICM) has made a significant contribution to advancing the state of the art in Communications Management. Building on the RACE I results in the area of TMN, the ICM project carried out research into the specification and implementation of communications management systems, thereby playing a pivotal role in the stimulation of the Information Society.

ICM has researched mechanisms to support **coherent management**, such as reliable communication within the management system; effective distribution of management information and services; consistent definition of management information and standardised definition of common management services. This coherence is achieved through adherence to (and definition of) standards, supported by applicable technology. Within this overall coherence, these mechanisms will enable **interoperability** at several levels:

- between management domains
- between heterogeneous network equipment
- between management functions.
- between service and network management.

During this research process, the project has validated TMN methodologies and technologies, as applied to the specification and development of complex management systems. As a result TMN technology is now better understood, but more importantly, the

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process of TMN specification, development and deployment can now be carried out on a much more sound basis.

This book gathers the experiences of the project and as such it provides practical guidance for the deployment of management systems, as well as providing a solid basis to assist in the definition of emerging telecommunications architectures such as TINA.

All students of advanced communications management as well as those researchers interested in investigating the state of the art in telecommunications should find this book extremely valuable and it is without any reservation that we strongly recommend it.

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