

## INTRODUCTION

The increasing demand for continuously improving weather forecasts covering longer periods of time has consequences both on ECMWF's requirements for increased numerical computer capacity, and for a continuously increasing volume of data.

Whereas it is relatively easy, though very much expensive, to achieve higher computer power by adding similar or replacing existing computers by higher performance computers, it is not possible to handle great volumes of data and provide easy and rapid access to these data by constantly extending or replacing similar computer systems. For this reason, ECMWF has to develop a new concept taking into account future data handling problems and ensuring their lasting solution, above all with regard to the fact that ECMWF will be called upon increasingly by the Member States to assist them in their research projects. Preparation for and discussion of such a data handling system were the reasons for organizing this workshop.

Existing and future requirements relating to the type and volume of available data and their use by the Member States were examined in the first place. Hardware and software solutions were then presented with the assistance of external experts. In conclusion, during intensive discussions, a concept taking these requirements into account was developed.