Preface

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Biographical notes: David Carruthers is a Director of CERC and an expert in atmospheric flows and dispersion modelling and their practical application in permit applications, larger studies including airports and forecasting. He has overseen the development of the various ADMS dispersion models, most recently ADMS-Airport. He is a member of the Steering and Scientific Committees of the European initiative on *Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes* and a member of the UK government's Air Quality Expert Group.

Christine McHugh is an Assistant Director of CERC where she is responsible for the development of CERC's software for dispersion modelling, emissions calculation and forecasting air quality. She has been involved in the development and application of ADMS for 16 years, most recently working on the Project for the Sustainable Development of Heathrow and Adding Capacity studies for the UK Department for Transport (DfT).

The series of international conferences on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes is concerned with the improvement of 'modelling culture' both in Europe and also more internationally.

Dispersion modelling is widely used for regulatory purposes, both for permits and for assessments, but there is a lack of sufficient mechanisms to make modelling processes transparent and generally to ensure trust in modelling results.

There are many aspects of this, such as: ensuring that models are scientifically sound; model validation; guidance to ensure proper use of models; promotion of good practices and elimination of bad; quality assurance with respect to model development; establishment of reference problems; comparability of input and output; ensuring proper exchange of experiences.

Such issues that are not specific to one particular model, but common to several, were in focus at the 11th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes. The models considered included those for industrial sources, urban air quality and transport modes with, for the first time, a session specifically devoted to airport emissions.

The entire series of harmonisation conferences is the result of an initiative launched in 1991 (see www.harmo.org) as a result of a meeting convened by the Institute of Prospective Studies by the Joint Research Centre in Ispra, Italy, to discuss current practices and developments in atmospheric dispersion modelling and to collect views on harmonisation of such models in the European Union (EU). Shortly afterwards the

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first workshop was held at Risø, Denmark, in May 1992 and subsequent conferences have been held across the ${\rm EU}$.

The conferences have a role as a forum where users and decision-makers can bring their requirements to the attention of scientists. They are also a natural forum for discussing modelling issues related to the EU air quality directives. In this conference, some 15 years after the first, the opportunity was also taken to review progress of the overall goals of the conference series.