

## **PREFACE**

A cadastre is usually, and in most countries, a parcel-based, and up-to-date land information system containing records of interests in land (rights, restrictions and responsibilities). It usually includes a geometric description of land parcels linked to other records describing the nature of the interests, the ownership or control of those interests, and often the value of the parcel and its improvements. Some countries do however also register apartments and other structures above or under the surface as property objects in line with parcels on the surface. In this workshop the cadastre is seen in relation to land registration as one system of land administration.

However, until now, the legal boundaries of parcels used for the registration of the legal status are usually fixed in 2D space. It is difficult to reflect the vertical dimension of the legal status of real estate objects, which may be important in current cadastres with most 3D relationships registered administratively, as an attribute of defined parcels, using condominium or strata title legislation.

In areas with an intensive use of land, there is a growing interest in using space under and above the surface. To be able to define and manage the juridical situation satisfactory, 3D geo information becomes therefore indispensable in registering today's world.

More and more situations occur in which the vertical dimension is an important factor in registering the legal status of real estate objects. Land Registration Offices and Cadastres throughout the world are being confronted to register those situations within the current registration possibilities. Since it is expected that Land Registration Offices and Cadastres will meet registration complications in the future, the way to register the legal status of real estate objects for which the third dimension is a matter of importance. It will be a challenge to science to find the right geometric descriptions.

This workshop has been organised as part of the activity of Commission 7 (Cadastral and Land Management) of the International Federation of Surveyors (FIG). The aim of the workshop is to consider the 3D issue of cadastral registration in an international context. The possibility to register property in three dimensions efficiently (including under and above the

surface) will facilitate the separate use of spaces. It should also stimulate the improvement of the legal security of spatially complex rights. It may be expected that the workshop will form the start of international FIG discussions on 3D Cadastres as the next 2002-2008 FIG work plans will be approved not earlier than in 2002.

FIG Commission 3 (Spatial Information Management), FIG Commission 7 (Cadastre and Land Management) and the Bureau of the UN Economic Commission for Europe Working Party on Land Administration (WPLA) encourage this workshop.

The main purpose of this workshop is to open international discussion on 3D Cadastres and exchange the status, experience and (planned) developments on use of 3D cadastral registrations. It will be a useful workshop aiming to exchange ideas, experiences and knowledge, concerning technical, legal as well as organizational aspects of a 3D Cadastre. The workshop focuses on the following subjects:

- the legal status of 3D objects, limitations, etc.
- conditions for establishment, including relations to neighbouring properties, etc.
- the registration of 3D objects, both the legal status and the geometry
- practical aspects, considerations and solutions for the establishment of a 3D Cadastre.

Delft, November 2001,

Peter van Oosterom/Chairman.