



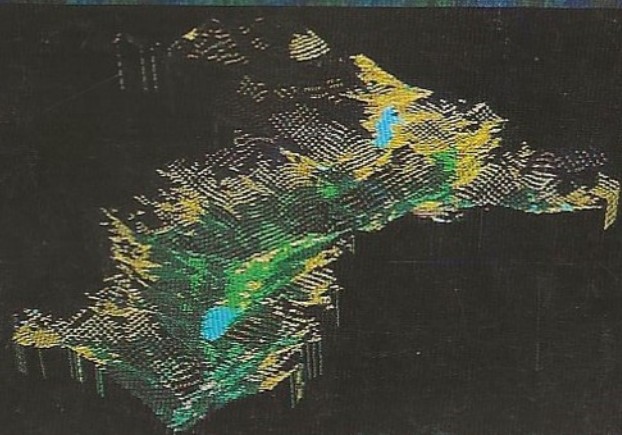
# **GIS EUROPE**

VOL. 1 NO. 1

Europe's Geographical Information Systems Magazine

FEBRUARY 1992

- **GIS Supports Swiss Environmental Protection Efforts**
- **Computers Ease Britain's Transport and Distribution Woes**
- **Polish GIS Use Increasing Rapidly**
- **Digital Chart of the World Becoming a Reality**



Val Poschiavo



# Is GIS a Profession?

Recently, representatives from both the academic community and the commercial sector, on both sides of the Atlantic, have been engaged in an important debate: the desire to see GIS technology recognised as a separate discipline, and possibly as a profession represented by a professional body. It seems timely, therefore, to launch *GIS EUROPE* with an editorial on the professional status of GIS. The outcome of this debate will have important implications for the development of GIS technology and the people involved in moulding its future form.

## A Multidisciplinary Profession?

Is the development of GIS as a separate discipline necessary or even desirable? First of all, GIS is multidisciplinary. It includes many people from widely differing backgrounds. To fully realise the potential of GIS and to ensure coordination among those involved, specialists with appropriate educational qualifications and system training are vital.

Although GIS often is considered to be just a set of tools for numerous applications, most GIS specialists now subscribe to the view that GIS is part of an overall information handling strategy, which in turn leads to better decision making. One way to encourage the beneficial evolution of GIS might be to elevate it to a professional status.

In the long term, professional status might provide an official identity for a subject that brings together geographical concepts, computing hardware and software, data analysis, spatial information collection methods and decision support. Professional recognition could form the basis for coordinating all the multidisciplinary interests. This is particularly important if the technology is not being used to its full advantage because users lack the level of spatial awareness needed to gain the greatest benefit from their GIS investment.

An appropriate question at this point might be, "What exactly is a profession?" One definition of profession is "a vocation or calling ... that involves some branch of advanced learning or science"; another is "a body of people engaged in a profession." Is GIS currently recognisable as a profession, or does it have the right credentials to become a profession? What characterises GIS sufficiently to justify its recognition in this way?

As a technology, GIS is already distinct from anything else, but computer technology is not unique to GIS. Alternative criteria could include the commercial and practical utility of GIS to daily life. Medical practitioners are certainly considered to belong to a profession, as are veterinarians, lawyers and surveyors. Similarly, teachers belong to a profession, and in some countries cartographers are viewed in the same light.

There are clearly several different "types" of professions. Not all have the same status nor are they as readily definable. GIS clearly does not have the same identity that medicine has. GIS is certainly not limited to geographers, nor to cartographers, surveyors, remote sensors or computer scientists. All these professions and many more, including engineers, planners, zoologists and agriculturalists, use GIS for a wide range of applications. Furthermore, these professionals are not GIS specialists but rather decision makers using a distinct technology. Perhaps GIS could become the first multidisciplinary profession, if that is not a contradiction in terms!

## Formal Structure

A possible route to professional recognition is suggested by the proposal to establish National Vocational Qualifications (NVQs) in the U.K. survey and mapping industry. NVQs are based on five standards of competence set by the industry concerned.

How the standard is achieved depends on how and where an individual learns, be it at work, at college or in his or her own time. There are no barriers, no discriminatory rules and no age limits. The NVQ framework outlines how qualifications relate to each level and how people can progress. Using the NVQ National Record, individuals can manage their own training and careers.

The NVQ initiative is sponsored by the Survey and Mapping Alliance (SMA). Its members include the British Cartographic Society, the Photogrammetric Society and the Remote Sensing Society. The initiative is supported by the major cartographic employers such as the Ordnance Survey, the Military Survey and the Hydrographic Office, which together employ one third of all U.K. cartographers.

But where does the NVQ proposal leave the GIS industry? The Association for Geographic Information (AGI) has recently become a member of SMA and will have a say in developing the NVQs for survey and mapping. In fact, SMA's NVQ Working Group is chaired by Alistair MacDonald, a member of the AGI Council.

NVQs are best suited to established industries with recognisable practical or academic qualifications. The main constraint on creating NVQs for GIS will lie in identifying the different competences of a GIS "professional." Clearly the survey and cartography fields are too narrow to embrace the total

GIS industry.

It has been suggested that AGI become the Institute for Geographic Information, which would be a recognised professional body and would require individual members to attain defined standards of qualification and experience. Or perhaps there is already an organisation that fulfils this role, namely the Royal Institute of Chartered Surveyors.

Vendors, consultants and academic personnel involved in GIS software and



hardware sales and development, GIS-related projects, and teaching and research already form the basis of a profession. But then there is the mushrooming user group. Most users are self-taught, highly motivated individuals with little formal background or training. How would they fit within a formal professional structure?

The growth and development of GIS technology requires that any

professional body encompass a wide range of backgrounds and individuals. It would be detrimental to the wider use of GIS if professional status is awarded to a selected group that then becomes an elitist organisation.

The most immediate debate centres on whether a separate GIS profession is desirable. There are clearly a number of difficulties to overcome and many questions to be answered. As with so many "good ideas," the

practicalities are potentially overwhelming. Nevertheless, the debate will continue for some time and is fundamental to the well being of the burgeoning GIS industry. ☞

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By David R. Green



## AGI, Mapping Awareness or Both?

**T**he question of whether or not there should be just one or two GIS conference/exhibitions each year in the United Kingdom has been raised on a number of occasions over the past six months. AGI, Mapping Awareness or both? The news is that this issue is still under serious consideration.

### Why Two Events?

While some people feel that only one event is necessary — whatever the underlying reason(s) — I think two events are worthwhile. Why? First, from a users perspective, potential delegates and visitors have the freedom to choose between two major venues offered in Birmingham (AGI) and London (Mapping Awareness) at different times of the year — November and February, respectively. Limiting the number of events will obviously restrict that choice. Second, two events offer the potential to include a greater variety of GIS topics/issues, as well as the opportunity for more people to speak. Third, as GIS applications become more diverse, more people will inevitably want to have the opportunity to disseminate more information. If you can't get to one conference/exhibition, you may still go to the other. Finally, having two conferences/exhibitions at different locations offers the possibility of attracting a different group of visitors and delegates, accessibility for more people, a greater opportunity to raise awareness, and even a different focus and coverage of material in presentation papers.

Although the costs of exhibiting, registration, travel and accommodation are significant to anyone involved in selling GIS hardware and software, or for those interested in GIS applications — especially if they attend both events — supporting two exhibitions and conferences, run by two different organisations, will continue to offer everyone a lot more than would be possible with one. Indeed, I think it is unlikely that a single GIS event could cope with the potential number of delegates and visitors. Furthermore, having one big event once a year does not necessarily mean any improvement in what is already being offered, "big" does not equate with better!

### Other Factors

Events covering a similar topic area are always likely to compete, which is beneficial to everyone concerned. Such competition leads to potentially better events all around. Wouldn't a single event lead to complacency? Perhaps the only change that might be worth considering is the timing of these two events. Could they be moved slightly further apart to make them more attractive to vendors? Timing also may be important in light of other conferences in Europe and North America.

The economic recession has presumably had something to do with the apparent "unrest" and the opinions now being voiced. For the vendors, attending both exhibitions can be costly, especially at a time when sales are somewhat lower than usual and financial returns are inevitably being hit. Maybe it is just the exhibition that

some feel is being duplicated unnecessarily and that the outlay incurred by vendors to attend the exhibition is no longer generating sufficient returns to warrant the support of two events. However, what worries conference organisers is the fact that it is probably the exhibitions that provide a large measure of support for the associated conferences. This could be a difficult issue to solve in the immediate future, as more and more conferences go hand in hand with exhibitions.

But from a customer/user perspective, should the GIS community let this be the sole motivating factor to support a move toward a single event? Surely the GIS community should be allowed to have a say in the matter, and somehow this should be put to a vote. I would like to continue to have the freedom to choose the event I wish to attend. Now I have a choice. And depending on time available and other commitments, I may attend one, two or neither of the events offered. But at least I have choice of when and where! I hope this continues to be the case. In the long term, I think it would be regrettable if we moved to a single event and instead look forward to even more events each year. ☞

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