

Geodesy Transformed: Attracting and Educating the Next Generation in a Global Context

Georgia Giannopoulou and Jérôme Dutell (Germany)

Key words: Cadastre; Education; Young surveyor

SUMMARY

The challenges posed by demographic change and the shortage of skilled professionals are not limited to Germany but represent a global phenomenon. At the same time, the importance of surveying in everyday life remains largely unknown to the general public. Many students fail to associate everyday applications—such as navigation systems—with geodetic science. As a result, demographic trends and the growing skills gap are causing serious concerns regarding the future workforce in the surveying field.

Due to Germany's federal structure, official surveying and mapping services are the responsibility of the individual federal states. While there are several regional initiatives aimed at promoting young talent, these efforts are often limited to specific communication channels. The transition from digital outreach to real-world engagement has not yet been fully achieved.

By contrast, countries such as Australia, the United Kingdom, and the United States have been actively promoting surveying-related professions for many years. In these countries, surveying is frequently linked with contemporary themes such as digitalization, sustainability, climate protection, and smart cities. These examples demonstrate that strong, cross-media brand communication is essential for enhancing the visibility and attractiveness of surveying as a career choice—an approach that could also serve as a model for a nationwide recruitment campaign in Germany.

Beyond targeted recruitment, education and training pathways must also be designed to attract new talent. Many countries have adopted flexible academic and vocational models that combine theoretical education with practical experience. Dual study programmes or cooperative education schemes, such as those commonly found in Canada and the Netherlands, provide students with

financial security and early connections to potential employers. International cooperation between universities is also becoming increasingly important, allowing students to gain intercultural experience and exposure to global developments in surveying.

In Germany, alongside traditional vocational training in geoinformation technology or university-based surveying studies, combined education models—such as dual study programmes—have become well established. Another attractive option is the combination of academic study with civil service training, which offers students financial remuneration during their studies and, upon completion, a secure position within public administration.

A further key component of sustainable workforce development is the integration of foreign surveyors into the German labour market. Addressing the different barriers through transparent procedures, targeted support, and international cooperation is essential to strengthening the future of surveying in Germany and ensuring its continued contribution to society in an increasingly globalized world.