

GeoAI at National Mapping Agencies in Europe

The adoption of Artificial Intelligence (AI) at National Mapping and Cadastral Agencies (NMCAs) in Europe could bring benefits such as personalised services for citizens, fewer repetitive tasks for staff members (liberating time for more tasks that have more value as listening, creating, improving services, ...), detect harmful content, support decision-making processes where a high number of data and variables are involved, which is more and more frequent when societal challenges are involved. In this context, GeoAI is defined as AI-applications at NMCAs dealing with geospatial issues.

However there has been limited initiatives aiming at measuring and understanding the level of AI adoption by NMCAs in Europe. As a follow up action of the successful Joint Virtual Workshop organised by EuroSDR in collaboration with EuroGeographics on “Artificial Intelligence for NMCAs” held on 3-4 April 2021, the Executive Management Team of EuroSDR decided to repeat the EuroSDR survey on Machine Learning / Deep Learning conducted in 2018. EuroSDR received valuable support of swisstopo to successfully relaunch this survey. The results were presented and discussed during a new EuroSDR/EuroGeographics virtual workshop with around ±150 participants on 27-28 October 2022.

38 mapping agencies in 20 countries (Austria, Belgium, Denmark, Estonia, Finland, France, Greece, Ireland, Italy, Latvia, Netherlands, Norway, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom) responded to the survey.

Although this is one of the first attempts to draw the landscape of the use of AI at NMCAs in Europe, the survey provides a unique overview of the current use of AI at NMCAs in Europe – insights which are extremely lacking at this stage and some recommendations to support AI adoption in order to improve their services.

The main outcomes of the survey are that AI is an opportunity for NMCAs (e.g. cost/time savings, more efficient business processes), and AI is not considered to be a threat for NMCAs (although there some concerns about ethics and overuse). In general, the AI-Maturity at NMCAs in Europe is rather low as many applications are still in the stage of Proof-of-Concept – however, we recently see more successful applications being implemented at NMCAs. Besides the survey results, the main results of the workshop polls will also be presented and discussed