Implementation of AI in European National Mapping and Cadastral Agencies
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AI in National Mapping, Cadastral and Land Registration Authorities

• EuroGeographics worked in collaboration with EuroSDR
• Organised three online workshops in three years: 2021, 2022, 2023
• The workshops took a holistic view of the implementation of AI: policy frameworks, research trends and experiences of implementing AI
• Brought together staff members of NMCAs, researchers at NMCAs and academic institutions, policy people and software developers
• A total audience of about 500 across the three workshops
Highlights of some trends from the workshop

- NMCAs view AI as an opportunity rather than a threat, but have become more weary of the hype with time - going from 99% in 2021 to 86% in 2023
- NMCAs still consider the maturity of AI in their organisations as low: 63% in 2021 to 57% in 2023
- The drivers for implementing AI in NMCAs are mainly Cost/Time savings and More efficient business processes, quality is not a prime driver and has not changed in three years – decreasing from 36% to 31% from 2021 to 2023. AI was seen as an innovation in 2021 (62%) and less so by 2023 (22%)
- Machine learning and Computer vision are the top two AI technology most relevant for NMCAs
- NMCAs see themselves as both users and suppliers in the AI cycle
In your view which will be the main barriers that NMCAS are facing when implementing AI solutions in the near future?

- Lack of financial resources of the organisation: 60%
- Technological barriers: 36%
- Lack of policy guidance on how to use AI: 24%
- Lack of governance mechanisms: 4%
- Ethical concerns of applying AI: 16%

October 2022

- Lack of financial resources of the organisation: 47%
- Technological barriers: 47%
- Lack of policy guidance on how to use AI: 22%
- Lack of governance mechanisms: 22%
- Ethical concerns of applying AI: 18%

September 2023
AI will totally disrupt the working processes at NMCAs
AI will have a significant impact NMCA business models
Trust and governance are important

What do you think about the main risks of using AI at NMCAs?

Which geospatial issues should AI policy take into account?
NMCA’s outlook of AI

- Routine
- In the future 😊 There is no future without AI
- Easier data collection.
- NMCAs can play a key role in providing high-quality, reliable reference data to support AI/ML training and validation of results.

- Automatic process of creating printable pdf/paper maps in different scales.
- to be a better service deliverer
- Different staff skill set and new data being collected from different sources

- NMCAs already apply AI/ML, but are still before the tipping point. Some already have excellent results and expertise - but overall, we will have to put more resources to catch up with this field.

- NMAs - pursue it!
- AI Can be a very useful tool in our production processes!
- AI is a tool

- Hopefully it will be able to manage many of the 'low hanging fruit' jobs in object detection, almost autonomously.
- Less manual work, just checking

- AI is a tool that needs to be used intelligently 😊
Thank you!