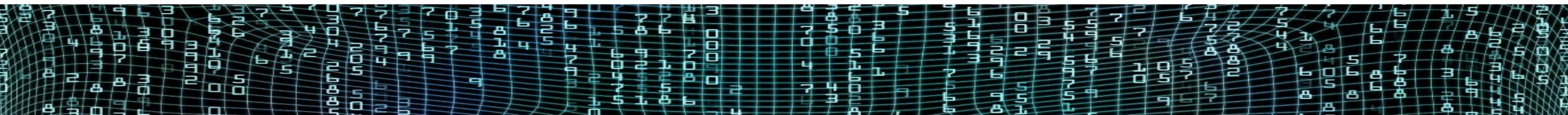# ARTIFICIAL INTELLIGENCE FOR NMCA'S

Highlights from a Joint EuroSDR - EuroGeographics Workshop

Colin Bray, EuroGeographics, Ordnance Survey Ireland

GeoAI Side-event of UN-GGIM: Europe Plenary, 14th October 2021

Joint Virtual Workshop organised by EuroGeographics and EuroSDR

as two half-day sessions on the 3 – 4 February 2021

WORKSHOP AIMS AND OBJECTIVES:

▪ Raising **awareness** and **understanding** of **AI** within the context of NMCAs. By sharing policy frameworks, research trends and experiences of implementing AI, this workshop will help us to appreciate the **impact**, **benefits, limitations** and **effects** of AI on the business processes of European NMCAs.

   ▪ What are the **potentials** of AI?

   ▪ What are the current technology **trends** in AI for geospatial data?

   ▪ What does this **mean** for National Mapping, Cadastral and Land Registration Authorities (NMCAs) across Europe?

   ▪ What are the **potential risks**?

ARTIFICIAL INTELLIGENCE FOR NMCAS

- Go to slido.com on your phone or device

- Event code is #AI4NMCAs

- You can get to the event by using your phone camera on the QR code

- We will be doing Q&A, polls and comments using slido

- Please do interact, we have a poll running now, please do try it out!
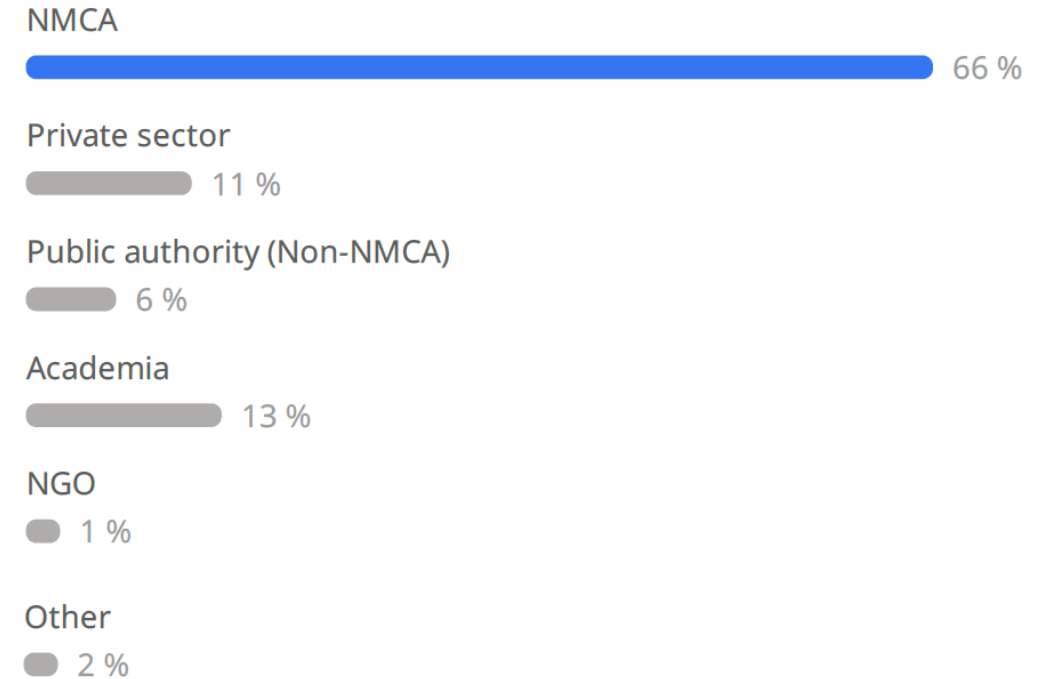
Tweet using the #AI4NMCAs
and cc in @eurogeographics and @EuroSDR

EuroSDR

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A diverse audience of 250 participants

Which sector are you representing?

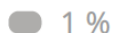| Sector	Percentage
NMCA	66 %
Private sector	11 %
Public authority (Non-NMCA)	6 %
Academia	13 %
NGO	1 %
Other	2 %

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AI IN NMCAS – THREAT OR OPPORTUNITY?

Is AI a threat or an opportunity for NMCAs?

Opportunity
99 %

Threat
1 %

Don't know
0 %

What are the key opportunities for NMCAs? You can select maximum three opportunities

Cost/Time savings
71 %

Development of innovative products/services
62 %

More efficient business processes (Example: automation, change detection)
48 %

Improved geospatial information quality
36 %

What are the main threats of AI for NMCAs? You can select maximum two threats

Ethical issues (e.g. discrimination, privacy, data protection)
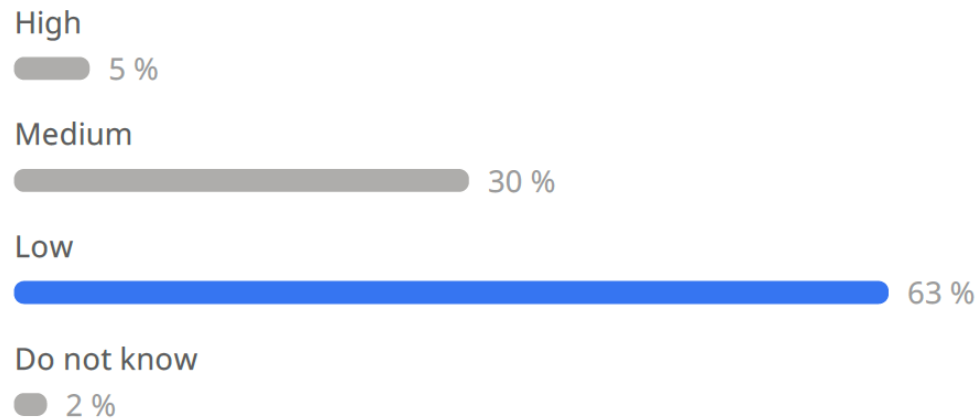38 %

Overuse of AI
31 %

Liability
26 %

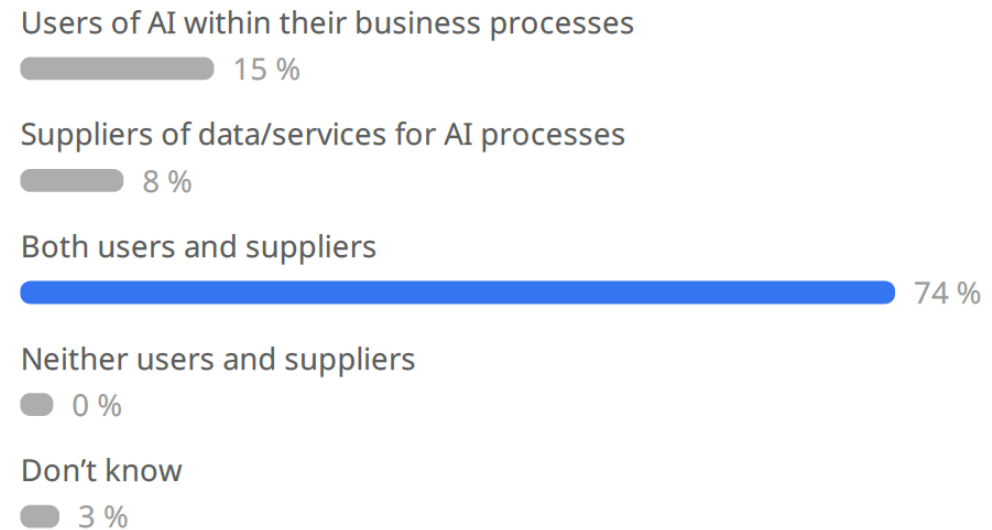Job elimination
20 %

Wrong investments
19 %

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STATUS OF AI IN NMCAS

How mature do you think is the use of AI in NMCAs?

High
5 %

Medium
30 %

Low
63 %

Do not know
2 %

Where do you think do NMCAs fit into the AI cycle?

Users of AI within their business processes
15 %

Suppliers of data/services for AI processes
8 %

Both users and suppliers
74 %

Neither users and suppliers
0 %

Don't know
3 %

Is AI causing a de-skilling of NMCAs workforce?

Not a de-skilling but a re-skilling
67 %

Partly
13 %

Do you think that increased automation by using AI at NMCAs means a risk of job losses?

Partly
49 %

No
37 %

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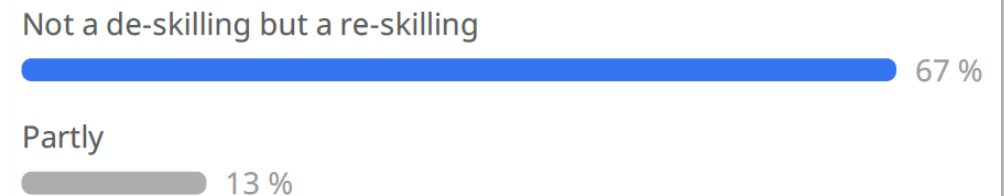
THE FUTURE OF AI FOR NMCAS? NEXT STEPS

AI is essential for future NMCAs activity.

Agree
71 %

Partly agree
28 %
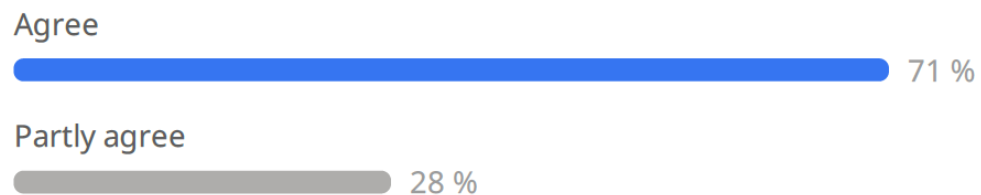
Should AI policy take into account geospatial issues?

Yes
80 %

Partly
16 %

What are the drivers for AI research? You can select more than one

Technology
81 %

Market opportunities
36 %

Financial
27 %
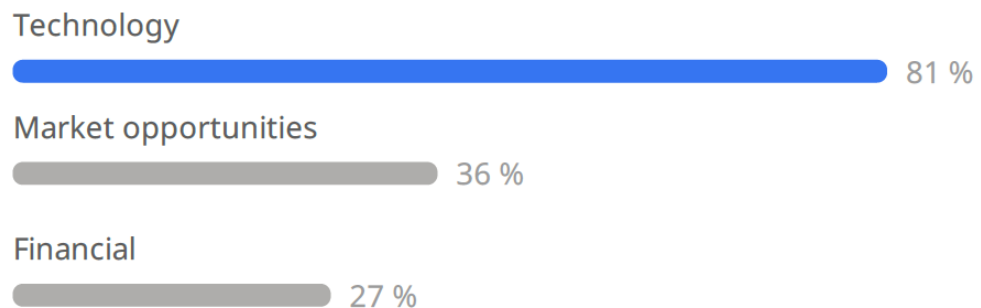
With AI, will tech giants overtake NMCAs and make them redundant?

No
40 %

Partly
33 %

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WRAP UP DAY 1

- AI is an **opportunity** for NMCAs (e.g. cost/time savings, more efficient business processes)

- **Low AI-Maturity** at NMCAs -> most applications are in stage of Proof-of-Concept

- AI is **not** considered **a threat** for NMCAs (some concerns about ethics and overuse)

- Numerous AI-policy initiatives at EU-level + national level

- Do not expect miracles and radical changes of AI-use

WRAP UP DAY 2

- Role for NMCAs and network organisations like EuroGeographics/EuroSDR/FIG to **support legislative development**

- **Ethical** concerns (being addressed through charters elaborated at international level)

- **Rights in digital world must be the same as rights in real world**

- **Measures** to prevent identification of a person's location must be taken

- **Risk** of discrimination through machine learning algorithms / bias in data collection

- AI as a tool, not as a magic bullet

- Some remaining issues: importance of post-processing, Training data is an issue, data noise

OPPORTUNITIES, THREATS, ETHICS…, IT IS ALL A MATTER OF BALANCE

NEXT STEPS

- Publication of PPTs on EuroGeographics and EuroSDR websites

- EuroGeographics/EuroSDR Workshop publication

- Follow-up EuroGeographics/EuroSDR AI Workshop

- Follow up of policy developments , in order to feed EU with geospatial concerns