## Evolving Expertise in Denmark: The Role of AI Competencies in Impact Assessment

Session: Are Competent Experts & Capacity Building still core to IA in spite of AI?



#### Ivar Lyhne and Lone Kørnøv

Associate Professor and Professor

The Danish Centre for Environmental Assessment, Aalborg University, Denmark https://dk.linkedin.com/company/the-danish-centre-for-environmental-assessment https://www.en.plan.aau.dk/research/the-danish-centre-for-environmental-assessment



## Evolving Expertise in Denmark: The Role of Al Competencies in Impact Assessment

Session: Are Competent Experts & Capacity Building still core to IA in spite of AI?





#### Ivar Lyhne and Lone Kørnøv

Associate Professor and Professor

The Danish Centre for Environmental Assessment, Aalborg University, Denmark https://dk.linkedin.com/company/the-danish-centre-for-environmental-assessment https://www.en.plan.aau.dk/research/the-danish-centre-for-environmental-assessment



# Brief context: Al in Denmark

A highly digitalized country - among leads in Europe

28% of all Danish companies use AI (2024) - highest in Europe, double of 2023, multiple purposes

Initiatives on digitalizing environmental assessment practices (e.g., DREAMS, EA Hub, EA Tools)



# What we did: Investigating views on AI in EA

19 semi-structured interviews during April-May 2025

Developers, consultants and authorities – and different seniority

Not Al experts, but EA practitioners

Not necessarily representative

Asking about 1) AI use, 2) views, 3) AI across actors, 4) future and 5) competences

# What we found: Use of AI in practice in DK

Al used for (according to interviewees):

- Nothing
- Encyclopedia on concepts, technologies, etc.
- Brainstorming on relations between project and the environment
- Drafting texts for sections in EA reports
- Review of text asking it to check logic/arguments, alignment with scoping report, references, etc.
- (Indirectly through EA Hub)

# What we found: Views on Al

#### Views on potentials of AI in EA

- Reducing cost and time
- Reducing "boring" work
- Reducing human mistakes
- Focusing EAs
- Identifying new solutions/patterns

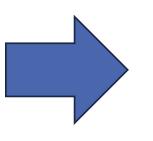
All: Assisting humans

#### **Views on AI limitations:**

- (Hallucinations, mistakes)
- Complexity of relations between project details and socio-natural systems
- The devil is in the detail when it is difficult for human, it is difficult for AI
- Confidentiality on project design details
- Data quality 'paradigm shifts' and legal changes

## What we found: Big variations today

- Knowledge about AI varied
- Experiences with AI varied
- **Opinions** on Al varied



#### A & B teams?

- Those with limited experience are generally skeptical and wait
- Those with much experience are generally very positive and use it much

# What we found: Views on levels of AI implementation

An individual endeavor – individual competence development

An organizational endeavor – especially larger organization provides AI solutions and training

A societal endeavor – expectation of societal AI solutions to be used across organizations (referring to societal solutions <u>EA Hub</u> and <u>EA Tools</u>)

## What we found: Across actors

	Developer (4)	Consultant (7)	Authority (3)
Views on potentials of AI	<ul> <li>Significant potential</li> <li>Barrier in confidential data</li> </ul>	<ul> <li>Significant potential</li> <li>Some: Not mature, not beneficial</li> <li>Some: Very useful for certain task</li> </ul>	<ul> <li>Significant potential</li> <li>Mindful of Al's limitations</li> </ul>
Who will lead AI development?	<ul> <li>Expects use and lead among consultants</li> </ul>	Internal development and testing	<ul> <li>Expect consultants to lead</li> <li>Expect societal solutions</li> </ul>
Across actors	<ul> <li>Don't talk about it</li> <li>Want open dialogue about use of AI</li> </ul>	<ul> <li>Not mature, nothing to discuss, or</li> <li>Very useful, should be declared</li> </ul>	<ul> <li>Don't talk about it</li> <li>Strong interest in shared learning, clear guidelines</li> </ul>

## What does it mean for competences?

"Are Competent Experts & Capacity Building still core to IA in spite of AI?" **YES** 

But new needs for competences on:

- Understanding opportunities and limitations on using AI in EA
- Prompting and designing AI tasks
- Reviewing AI outputs what to be attentive to?

And we need to consider:

- An 'Al divide' who is to define use of Al?
- How to discuss AI across actors in value chains?



### Let's continue the conversation!

Ivar Lyhne and Lone Kørnøv

Associate Professor and Professor

The Danish Centre for Environmental Assessment, Aalborg University, Denmark https://dk.linkedin.com/company/the-danish-centre-for-environmental-assessment https://www.en.plan.aau.dk/research/the-danish-centre-for-environmental-assessment