



**UNIVERSITY  
OF TURKU**

# From Ethical Principles to Governed AI

Matti Mäntymäki  
University of Turku



UNIVERSITY  
OF TURKU



BUSINESS  
FINLAND

# Why AI governance matters?

- Surge of ethical principles and guidelines for AI
- Challenges in putting ethical principles in practice recognized by even academic ethicists

- Disconnection between ethical principles and practice(s) in organizations deploying AI
- ESG and CSR aspects related to AI
- EU Commission's AI ACT proposal

## The ALGA consortium:

**BUSINESS  
FINLAND**



**SOLITA**

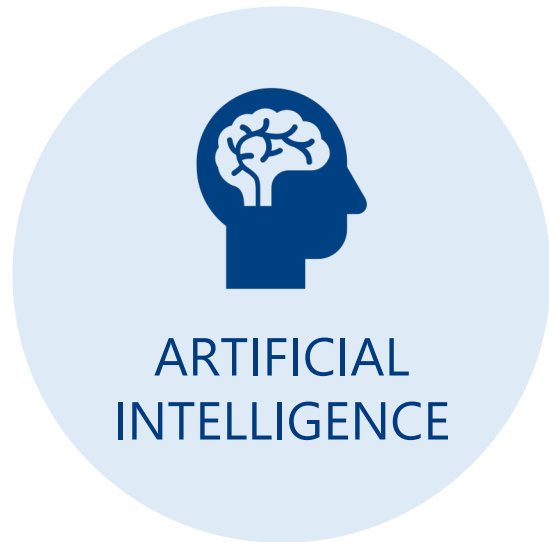
**DAIN  
STUDIOS**



**LOIHDE  
ADVISORY**

**ZEFORT**

# What is AI governance?

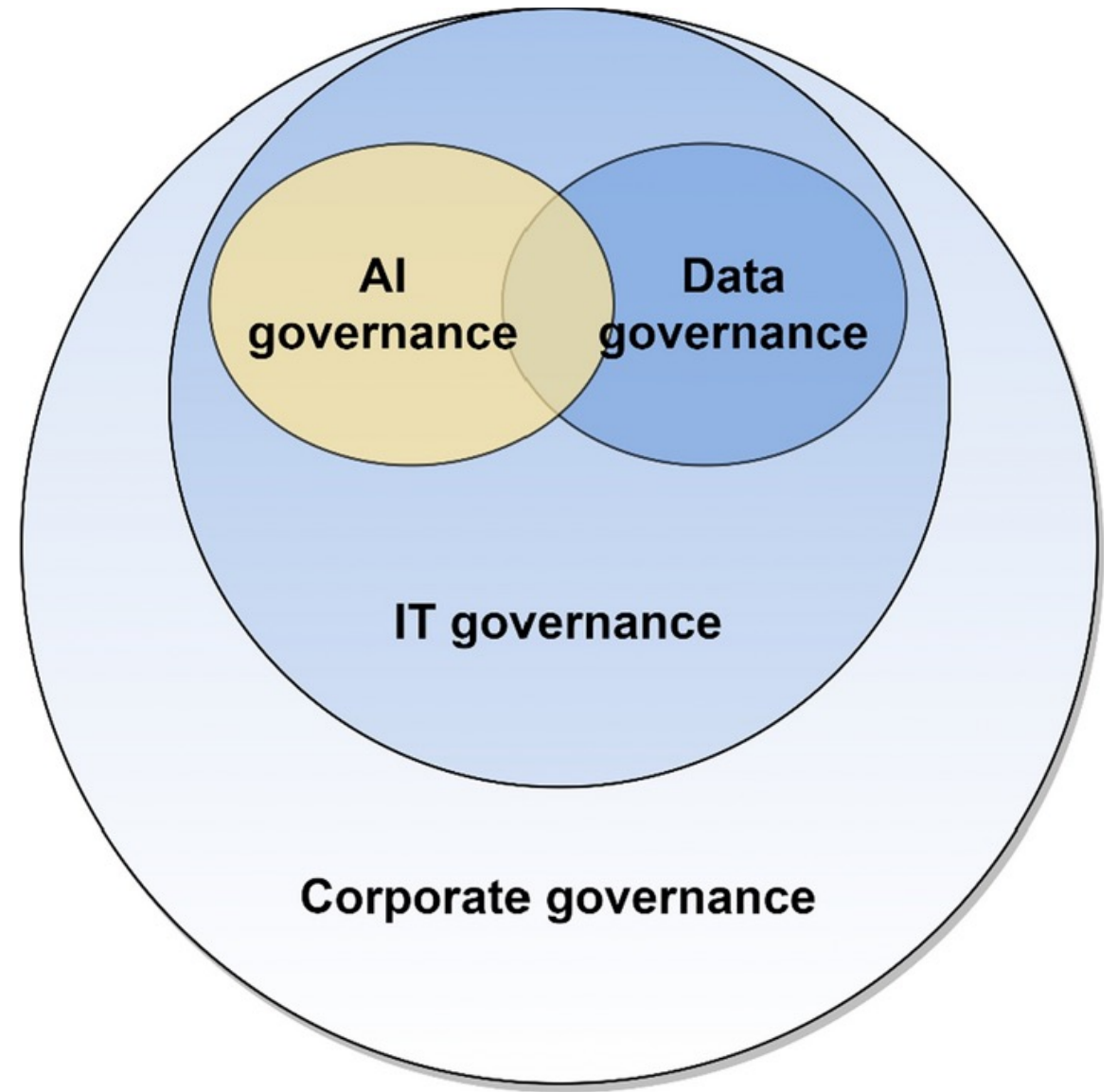


AI governance means  
governance *of* AI, not  
governance *by* AI.

Bevir, M. (2012). *Governance: A very short introduction*. Oxford University Press.  
Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons*, 62(1), 15–25.

# AI Governance as a part of the organization's governance structure

Defining organizational AI governance.  
Mäntymäki, M., Minkkinen, M., Birkstedt, T. & Viljanen, M. (2022) *AI Ethics*  
<https://doi.org/10.1007/s43681-022-00143-x>



# Towards the AIGA definition of AI governance

AI governance is the system of rules, practices, processes, and capabilities used to ensure that an organization's use of AI technologies aligns with the organization's strategies, objectives, and values, fulfils legal requirements, and aligns with principles of ethical AI followed by the organization.

(Mäntymäki et al. 2022)

**Defining organizational AI governance.**

Mäntymäki, M., Minkkinen, M., Birkstedt, T. & Viljanen, M. (2022) *AI Ethics*

<https://doi.org/10.1007/s43681-022-00143-x>



# The hourglass model of AI governance

Putting AI Ethics into Practice:  
The Hourglass Model of  
Organizational AI Governance

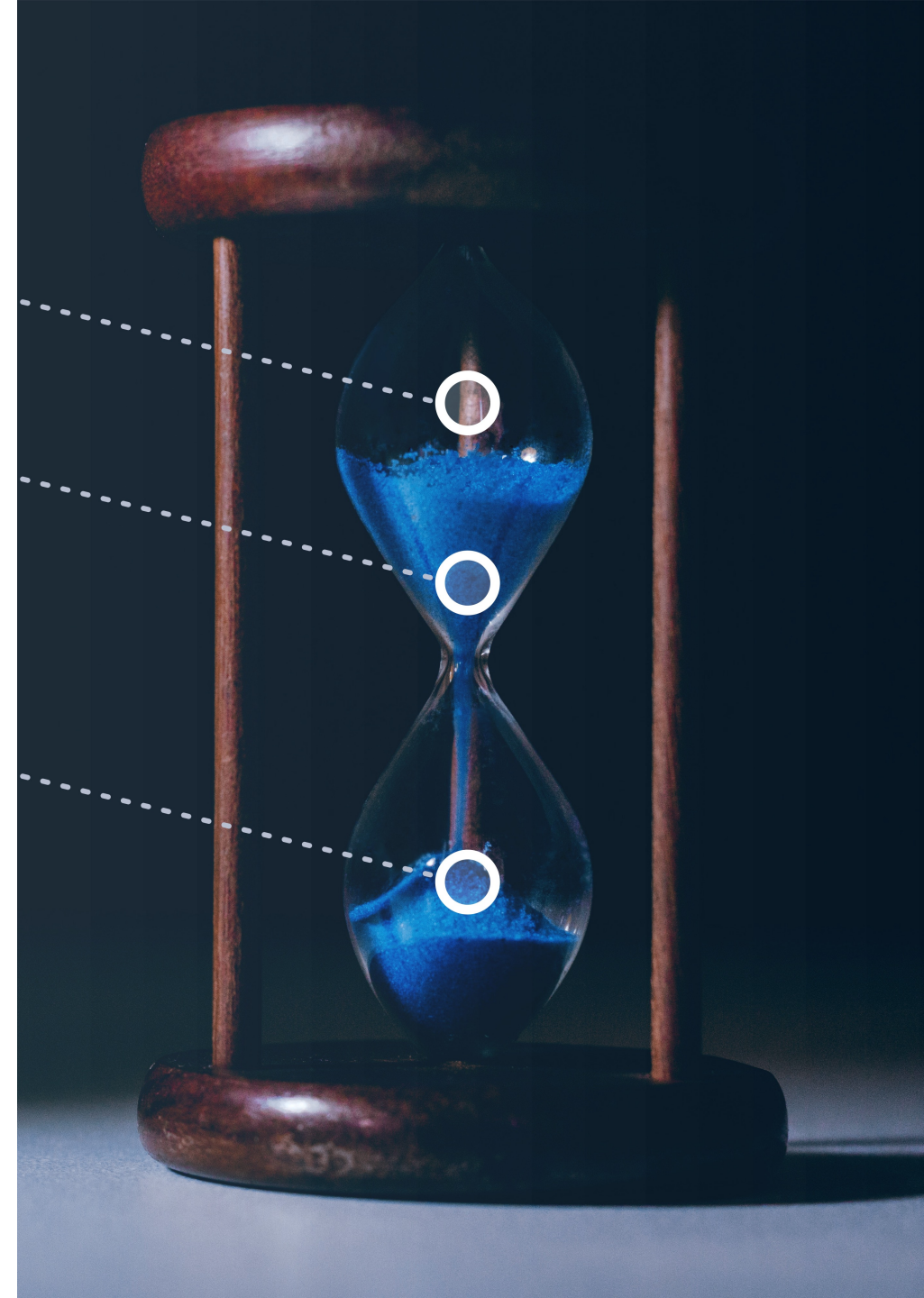
Mäntymäki, M., Minkkinen, M.,  
Birkstedt, T., & Viljanen, M.  
(2022). *arXiv preprint*

<https://doi.org/10.48550/arXiv.2206.00335>

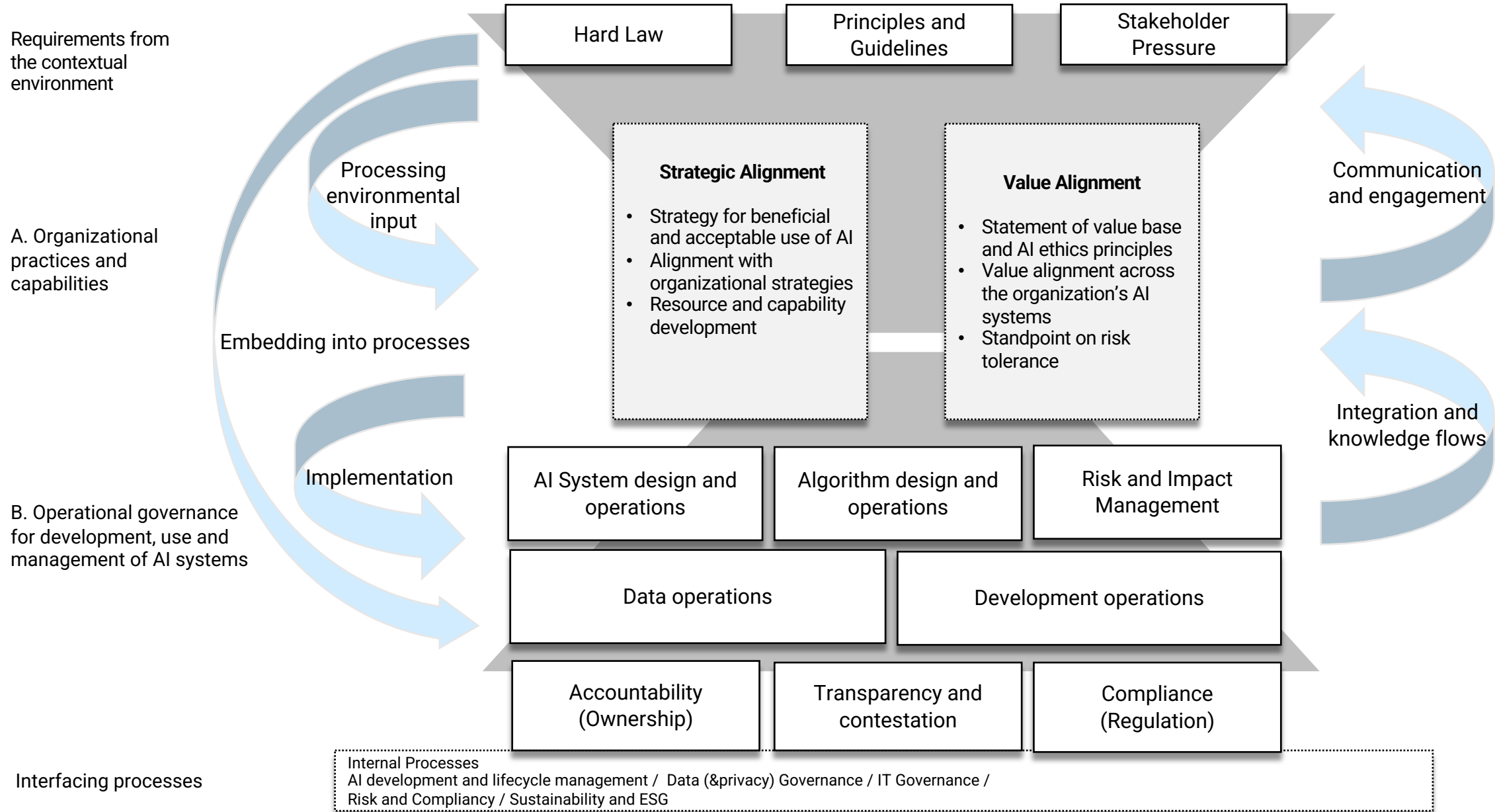
ENVIRONMENT

ORGANIZATION

AI SYSTEM



# The hourglass model of AI governance







[www.ai-governance.eu](http://www.ai-governance.eu)

Twitter: #AIGA\_EU

# Thank you!

Matti Mäntymäki  
Associate Professor  
Information Systems Science  
University of Turku  
[matti.mantymaki@utu.fi](mailto:matti.mantymaki@utu.fi)

@mattimantymaki

BUSINESS  
FINLAND



 SOLITA

DAIN  
STUDIOS



LOIHDÉ  
ADVISORY

ZEFORT