

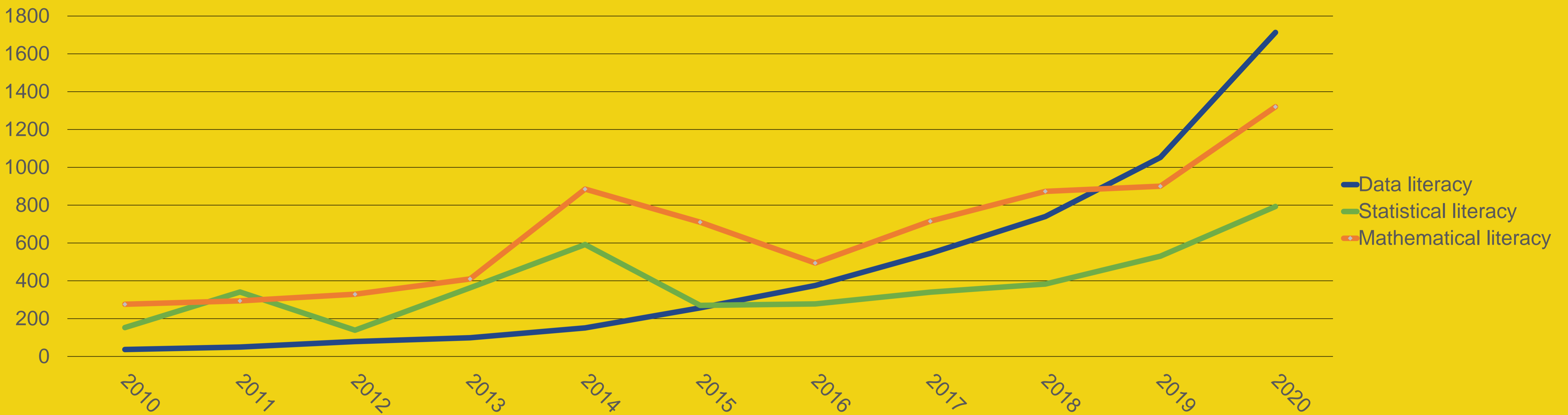
What is the idea and aim of the IO?

- developing data literacy as organization competency by identifying its dimensions and measurement.
- examining the relationship between data literacy and organizational performance (internal and external) in Dutch governmental agencies.

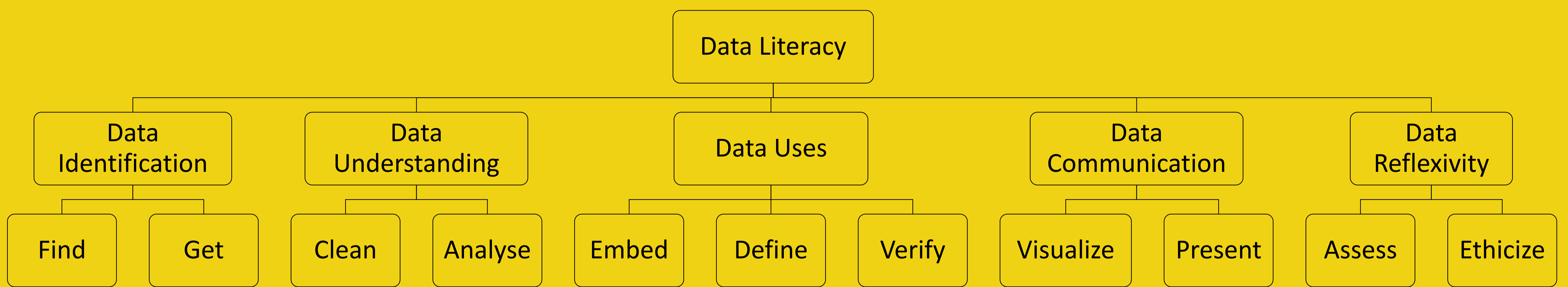


IO4: Measurement assessment
Dr. Guido Ongena

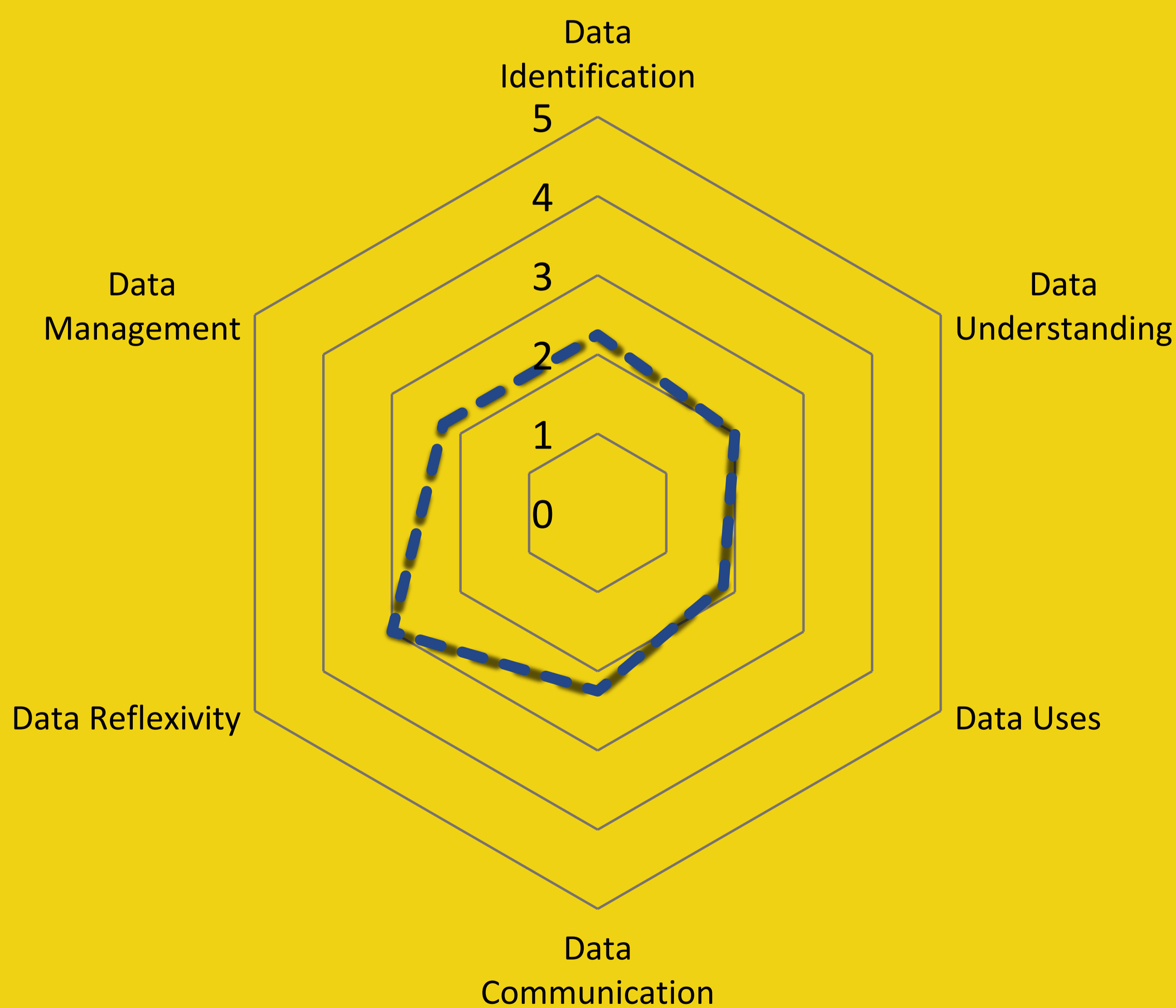
Number of scientific publications



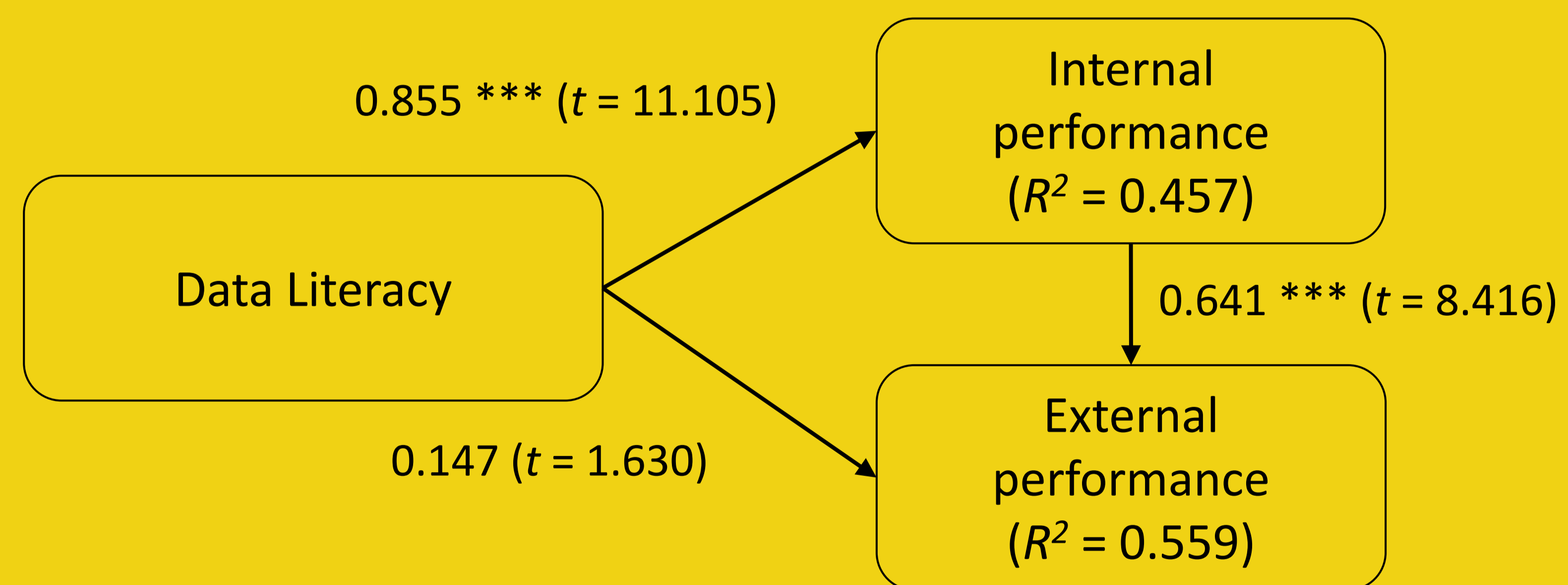
What are the results of the IO?



For practitioners



For research



Future ideas

- Better incorporation of data management / data governance
- Attention for open science and research data management



Appendix: Measurement instrument

Dimension	Subdimension	Items
Data Identification	Find	We have a broad understanding of different data sources, and most relevant ones can be chosen from a selection of data sources
	Get	We are aware of and use data portals for specific topics We can access data using more complex data formats (e.g., JSON, XML) We are able to use APIs to get data
Data Understanding	Clean	We can detect and remove invalid records using programs that support data cleaning (e.g., OpenRefine) We have a high awareness of data quality criteria (e.g., machine processable, empty fields, duplicate detection)
	Analyze	We are able to work with advanced statistics (e.g., inferential view of data, linear regression, decision trees) We can research and select the most appropriate tool for our analysis needs
Data Uses	Embed	We perceive data as a source of security and see it as an enabler for progress and support for existing and planned activities Higher management and leaders support data initiatives
	Define	We are able to formulate questions to data precisely and target-oriented to find meaningful answers in most of the cases We are able to identify and describe problems in practical situations using a range of data sources
	Verify	We have implemented multiple layers of data checking in standard procedures across the organization We can identify whether the data is trustworthy and locate alternate sources if required
Data Communication	Visualize	We are able to create interactive charts and dashboards We are able to visualize uncertainties along with the data
	Present	Our projects are supported by interactive visualizations and more sophisticated narrative in a broader context (e.g., data storytelling, conferences, talks, monthly updates, blog posts) We can read and understand a range of tables, charts and graphs
Data Reflexivity	Assess	We can interpret data outputs and results confidently and critically We have internalized evaluation criteria We are aware of the impacts of data use
	Ethicize	We have defined guidelines for responsible data handling and have incorporated them internally to activities