

# Andmekvaliteet

Silver Rits / Andrei Rjabtsev  
Aprill 2022

**Rickman**

**Estonian Business School**

**Department of Management**

**COMMONALITIES IN DATA GOVERNANCE  
PRACTICES OF ESTONIAN ORGANISATIONS WITH  
HIGH DATA QUALITY**

Master's Thesis

Silver Rits

Andrei Rjabtsev

Raiko Vähk

Supervisor: Associate Professor Innar Liiv (Tallinn University of Technology)

Tallinn 2021

1. Lühiülevaade uurimustööst
2. Andmekvaliteedi hindamise metodoloogia tutvustus

**Rickman**

# Sleep analysis, perfected.

A sleep lab wrapped around your finger.

98%

HRV Accuracy\*

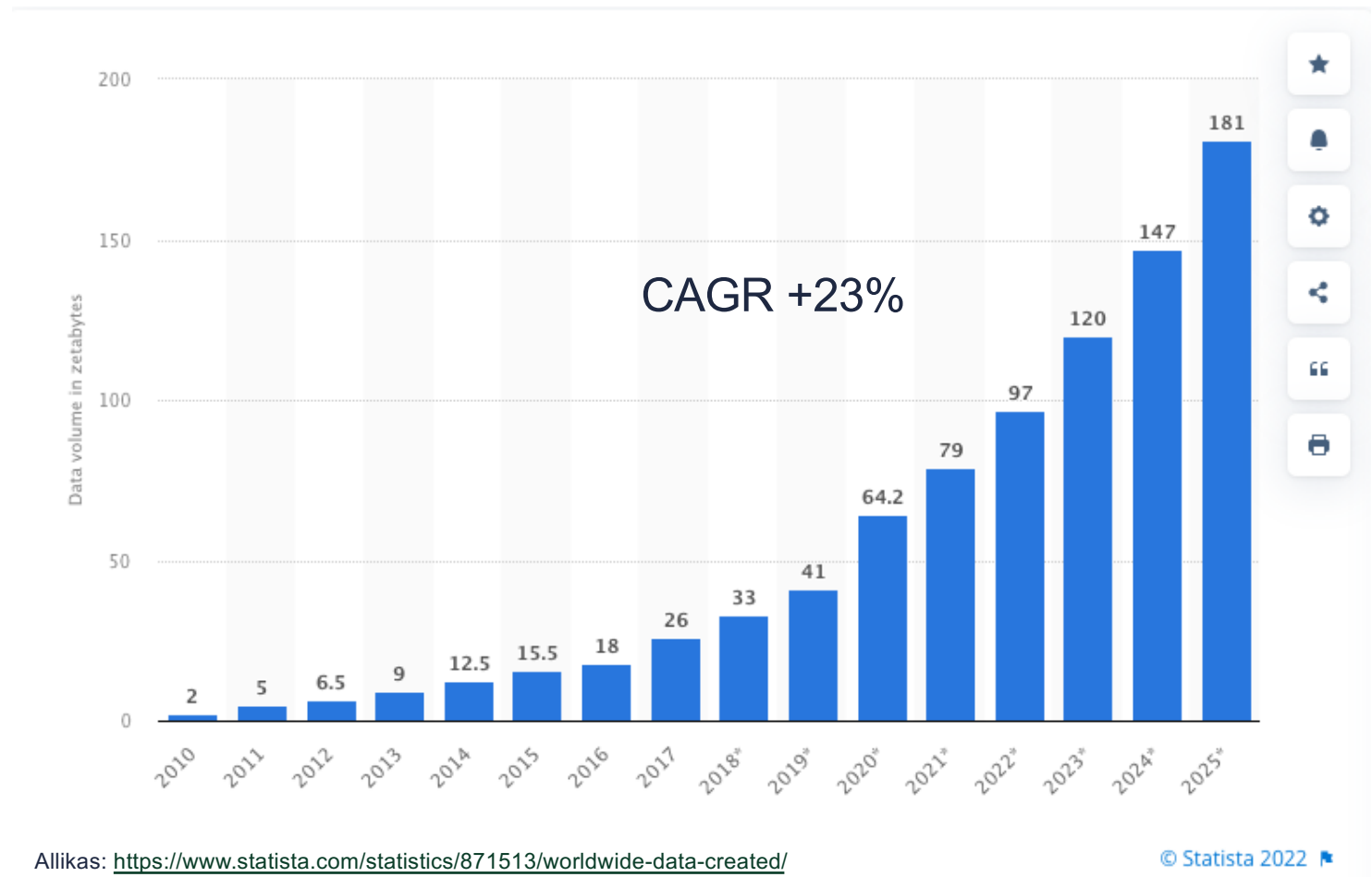


99.6%

Heart Rate Accuracy\*



Allikas: <https://www.sap.com/norway/insights/what-is-big-data.html>



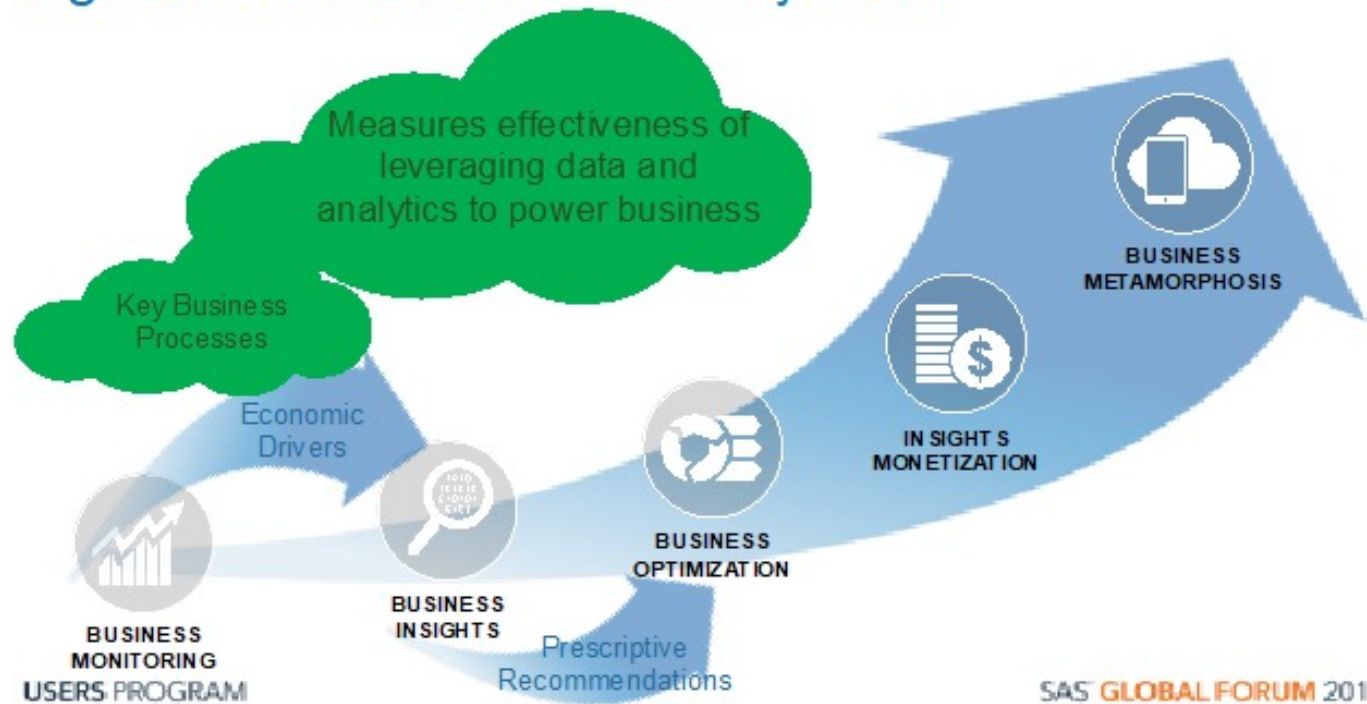


Allikas: <https://www.linkedin.com/pulse/data-new-oil-christy-james/>

**Rickman**

# Big Data Business Model Maturity Index

#SASGF



SAS and the SAS logo are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. \* indicates SAS registered trademarks. Other brands and product names are trademarks of their respective owners.

SAS GLOBAL FORUM 2018

Rickman

The image shows a screenshot of a web browser displaying a Forbes article. The browser's address bar shows 'forbes.com'. The Forbes logo is visible at the top of the page. The main text of the article is partially visible, with a callout box highlighting a specific statistic. The callout box is a yellow speech bubble shape pointing to the text '\$3.1 trillion from the U.S. economy annually'.





< > forbes.com

☰ Forbes

A 2016 study by IBM is even more eye-popping. IBM found that poor data quality strips \$3.1 trillion from the U.S. economy annually due to lower productivity, system outages and higher maintenance costs, to name only a handful of the bad outcomes that result from poor data quality.

<https://www.forbes.com/sites/forbestechcouncil/2021/10/14/flying-blind-how-bad-data-undermines-business/?sh=5e98031b29e8>

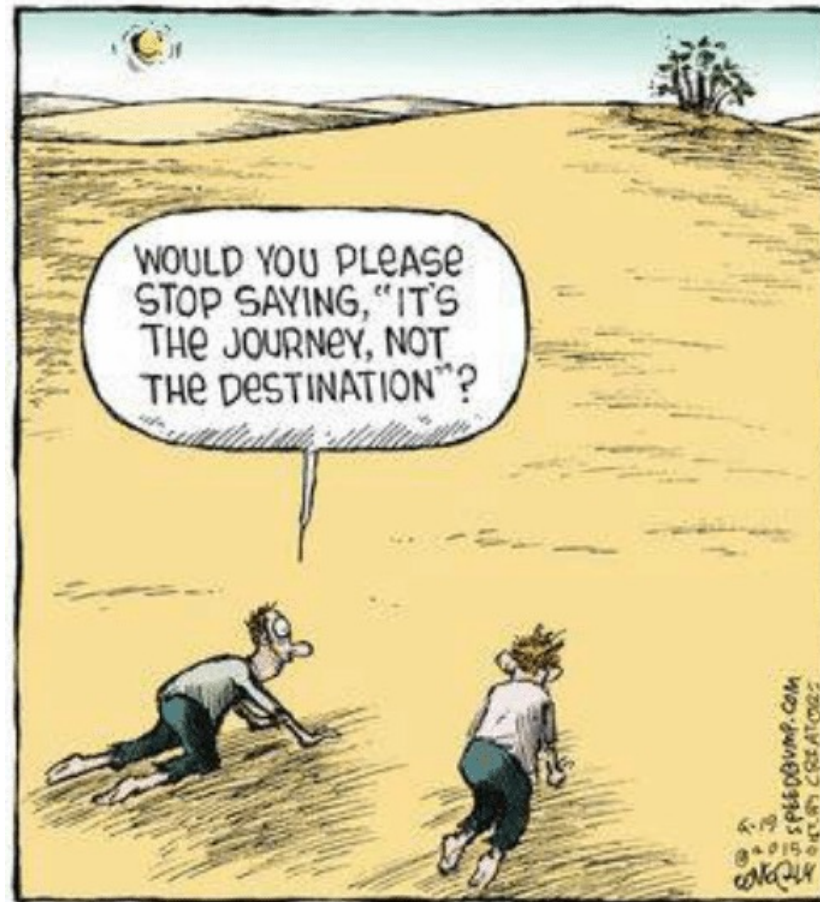


< >    www.gov.uk 

## The costs of poor data quality

Poor quality data costs the government, businesses, and society every single day. The DAMA Data Management Body of Knowledge states that estimates differ, but experts think that organisations spend between 10-30% of revenue on handling data quality issues. However, there are also direct and indirect costs associated with poor quality data that are more than just monetary.

<https://www.gov.uk/government/news/hidden-costs-of-poor-data-quality>



Allikas: <https://me.me/i/would-you-please-the-journey-not-the-destination-4819428>

**Rickman**

## Andmekvaliteet...

...on andmete kasutamiseks kõlbulikkuse (*fit for use*) ja käesoleva (töö-)ülesande lahendamiseks vajalikele kvaliteedinõuetele vastavuse määr.

... tegeleb päriseluliste objektide kirjeldamise täpsusega, mida töödeldakse tarkvaraga ja kommuniqueeritakse võrgu abil.



Allikas: [https://www.toonpool.com/cartoons/Being%20Average\\_236613](https://www.toonpool.com/cartoons/Being%20Average_236613)

**Rickman**

Table 3. Data quality dimensions mentioned in literature. Source Wang, 2006.

Accuracy	25	Flexibility	5	Sufficiency	3	Informativeness	2
Reliability	22	Precision	5	Usableness	3	Level of detail	2
Timeliness	19	Format	4	Usefulness	3	Quantitativeness	2
Relevance	16	Interpretability	4	Clarity	2	Scope	2
Completeness	15	Content	3	Comparability	2	Understandability	2
Currency	9	Efficiency	3	Conciseness	2		
Consistency	8	Importance	3	Freedom from bias	2		

# Andmekvaliteedi mõõtmine

1. **Objektiivne** – vastavus standardile
2. **Subjektiivne** – andmekasutajate hinnang

# Andmekvaliteedi mõõtmine

- **AIMQ** – A Methodology for Information Quality Assessment (Lee, Strong, Kahn, Wang; 2002)
- **IQA** – Information Quality Assessment küsitlus (AIMQ metodoloogias)

*Info vastab tõele.*



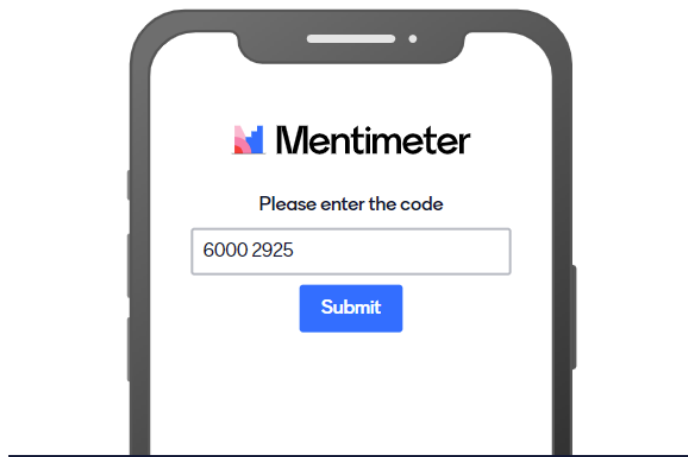
*Info vastab tõele.*

**Info** vastab tõele.

1.....10  
mitte üldse.....täiesti

Go to

[www.menti.com](https://www.menti.com)



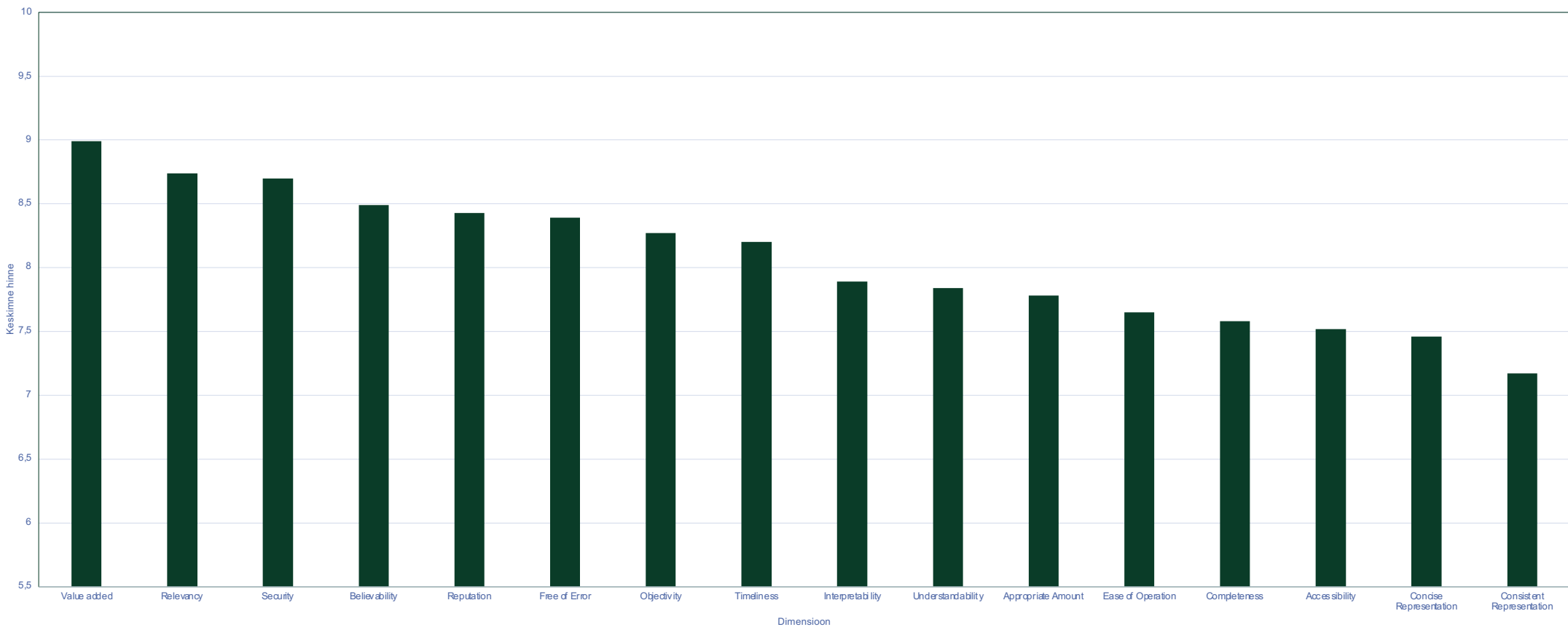
Enter the code

**6000 2925**



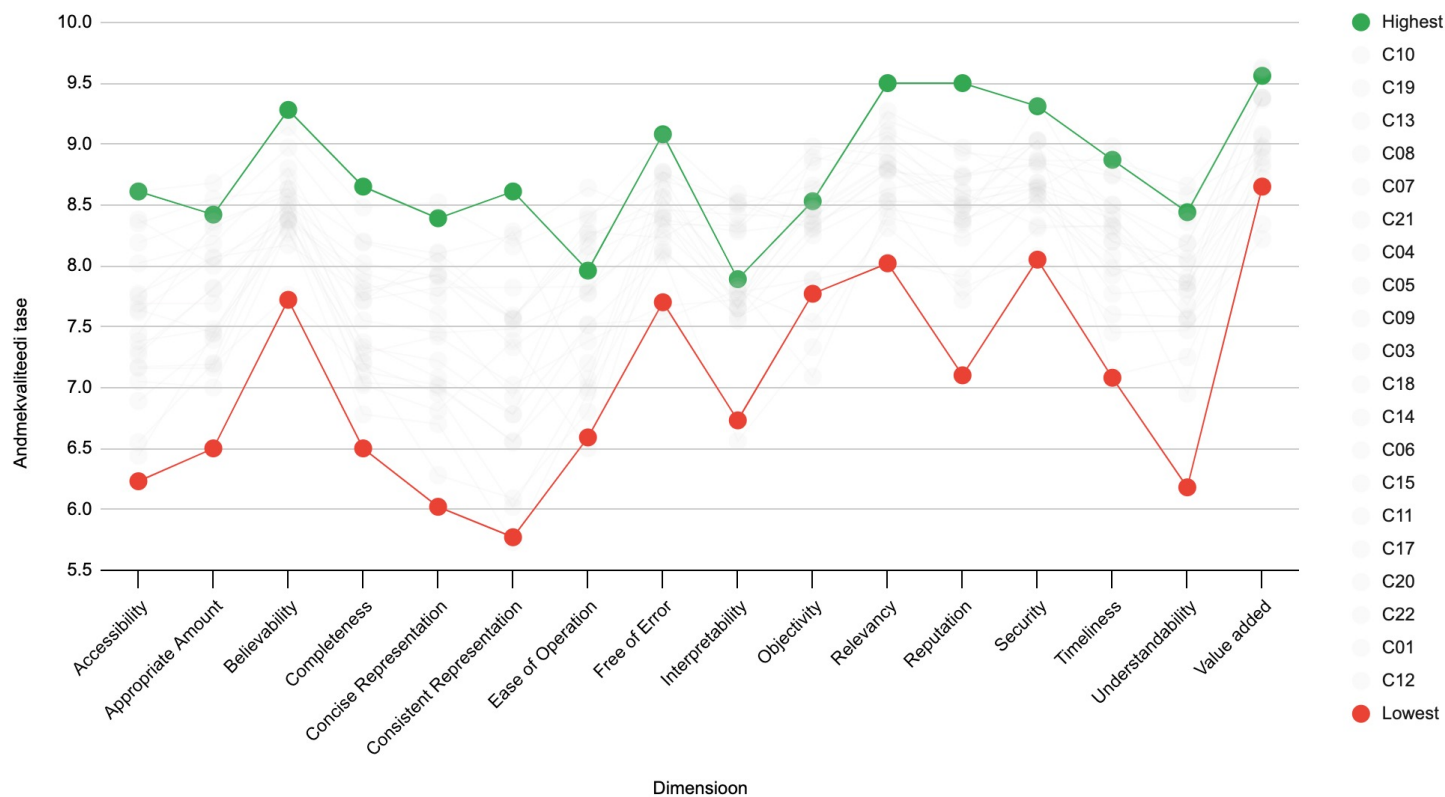
Or use QR code

# Andmekvaliteet Eesti ettevõtetes



# Andmekvaliteet Eesti ettevõtetes

Eesti organisatsioonide andmekvaliteet dimensioonide kaupa



8,79



20%

7,04

# Andmekvaliteet Eesti ettevõtetes

Figure 3. Data quality vs organisational attributes. Source: Composed by authors based on analysis.

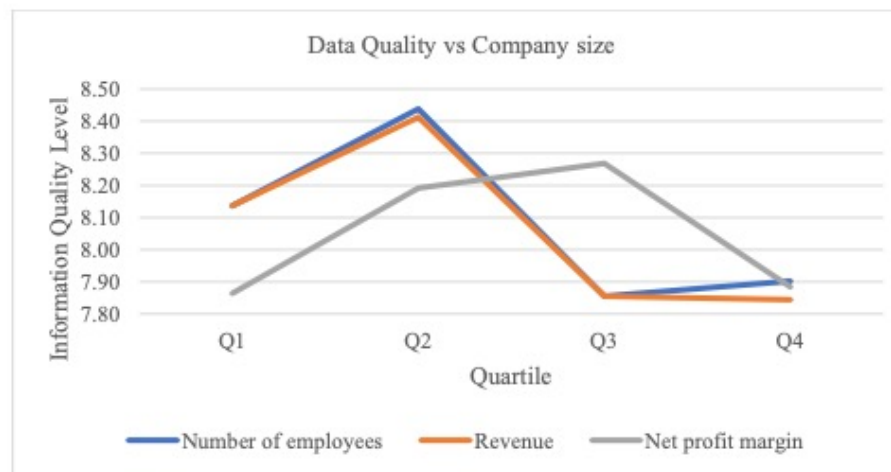


Table 7. Quartile average figures. Source: Composed by authors based on analysis.

Quartile	Number of employees	Revenue	Net profit margin
Q1	28	€ 3 350 562	-5%
Q2	57	€ 5 078 493	5%
Q3	136	€ 24 348 325	13%
Q4	947	€ 312 447 776	39%

# Andmekvaliteet Eesti ettevõtetes

Figure 3. Data quality vs organisational attributes. Source: Composed by authors based on analysis.

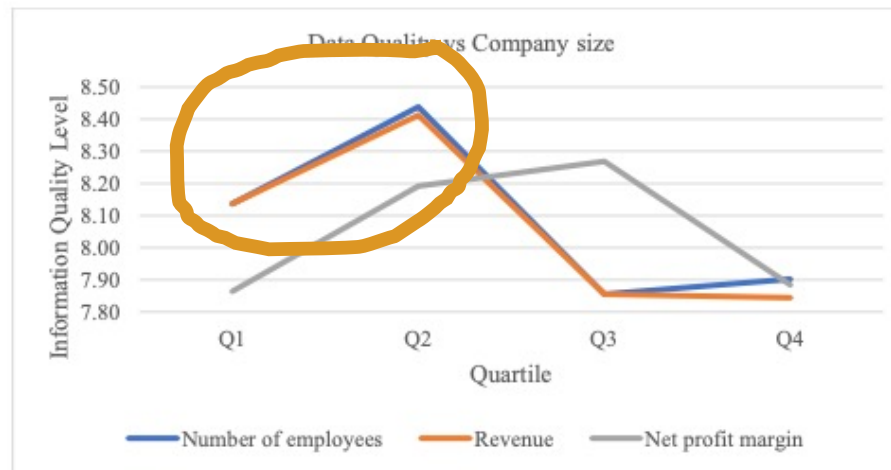


Table 7. Quartile average figures. Source: Composed by authors based on analysis.

Quartile	Number of employees	Revenue	Net profit margin
Q1	28	€ 3 350 562	-5%
Q2	57	€ 5 078 493	5%
Q3	150	€ 24 548 325	13%
Q4	947	€ 312 447 776	39%

# Andmekvaliteet Eesti ettevõtetes

Figure 3. Data quality vs organisational attributes. Source: Composed by authors based on analysis.

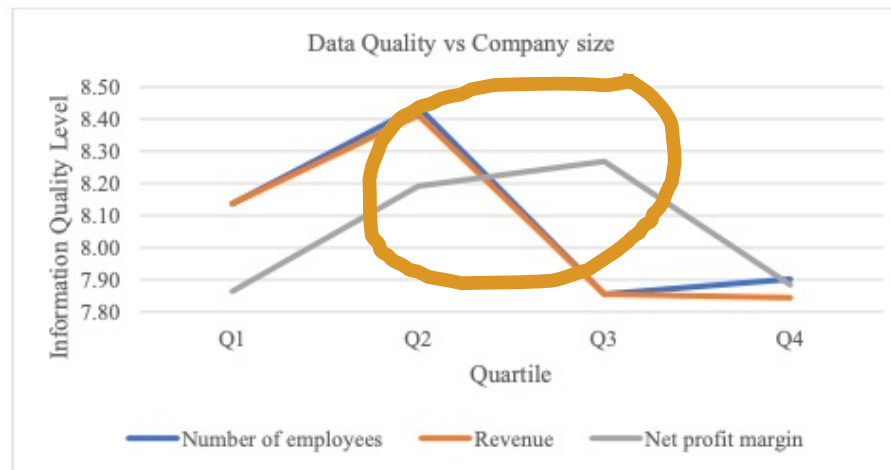


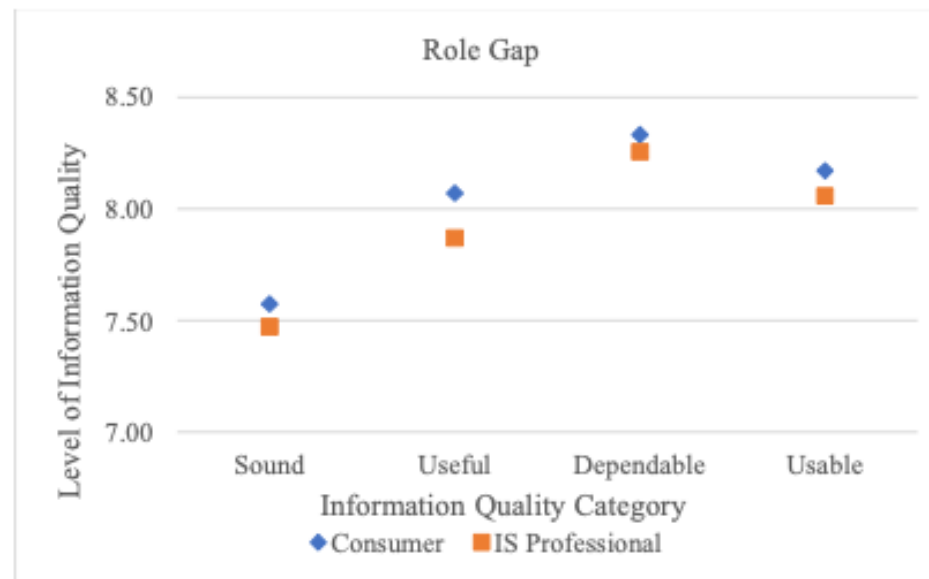
Table 7. Quartile average figures. Source: Composed by authors based on analysis.

Quartile	Number of employees	Revenue	Net profit margin
Q1	28	€ 3 350 562	-5%
Q2	57	€ 5 078 493	5%
Q3	136	€ 24 348 025	13%
Q4	947	€ 312 447 770	30%



# Andmekvaliteet Eesti ettevõtetes

Figure 5. Role Gap Analysis. Source: Composed by authors based on analysis.



## Andmehaldus...

...on **rollide, otsustusõiguste ja vastutuste** raamistik koos andmetega seotud **protsesside, standardite ja juhistega** organisatsioonisiseste andmete kui **strateegilise vara** juhtimiseks.

... tegeleb **inimeste, protsesside ja tehnoloogiaga**.

Andmehaldus sätestab, **andmete juhtimine** (*data management*) viib ellu.

# DaMaGo model, algne

Figure 1. Data management and data governance model (DaMaGo model). Composed by authors.



# DaMaGo mudel, täiendatud

Figure 6. The extended DaMaGo model. Composed by authors.





# 1. Mõttelaad

- Kaasatus
- Agiilsus
- Motivatsioon
- Kultuur



## 2. Oskused

- IT-kirjaoskus
- Leidlikkus
- Mitmekülgsus



## 3. Kommunikatsioon

# Andmekvaliteet või andmehaldus – kumb oli enne?

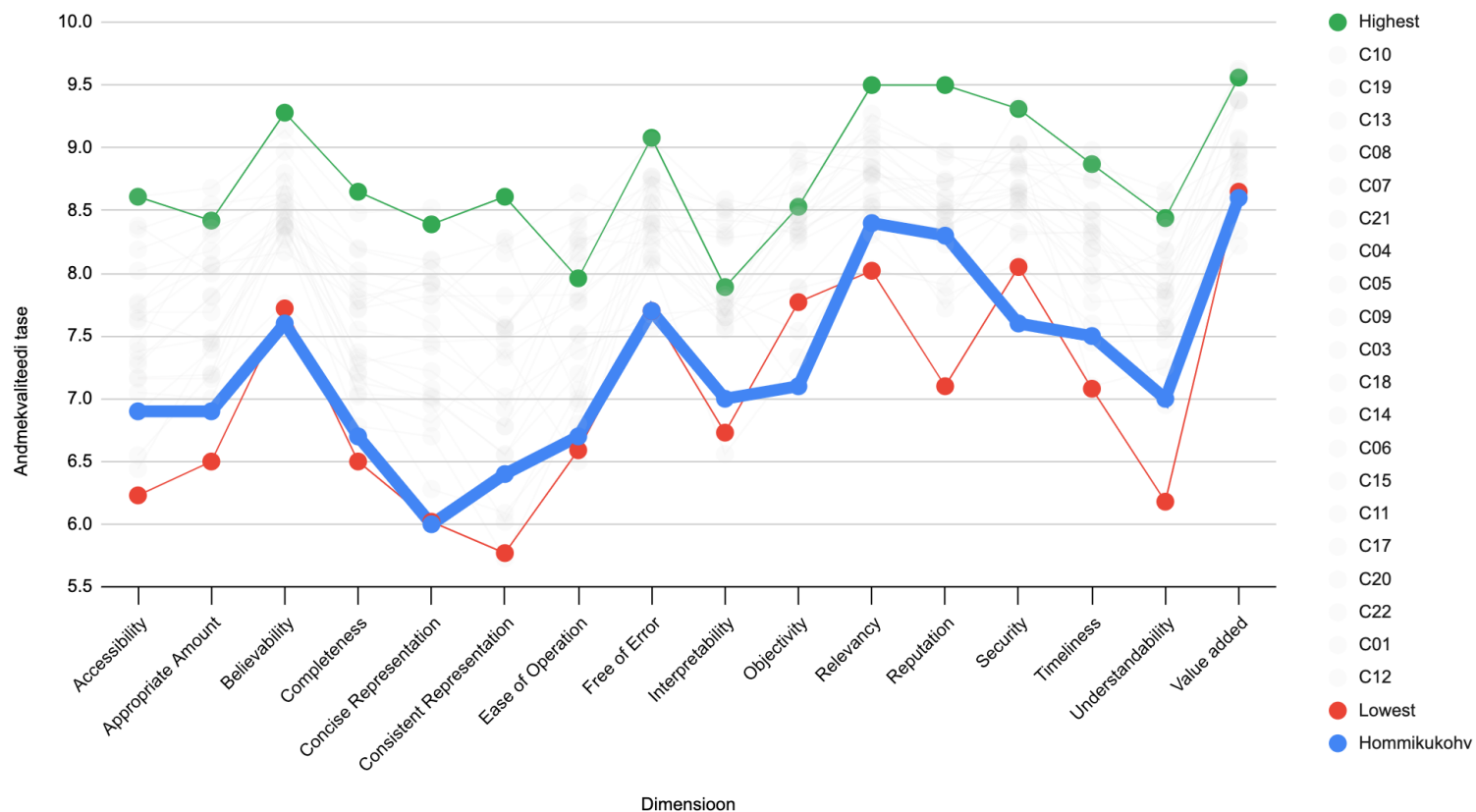


Allikas: <https://scitechdaily.com/solving-the-chicken-and-the-egg-problem-a-step-closer-to-the-reconstruction-of-the-origin-of-life/>

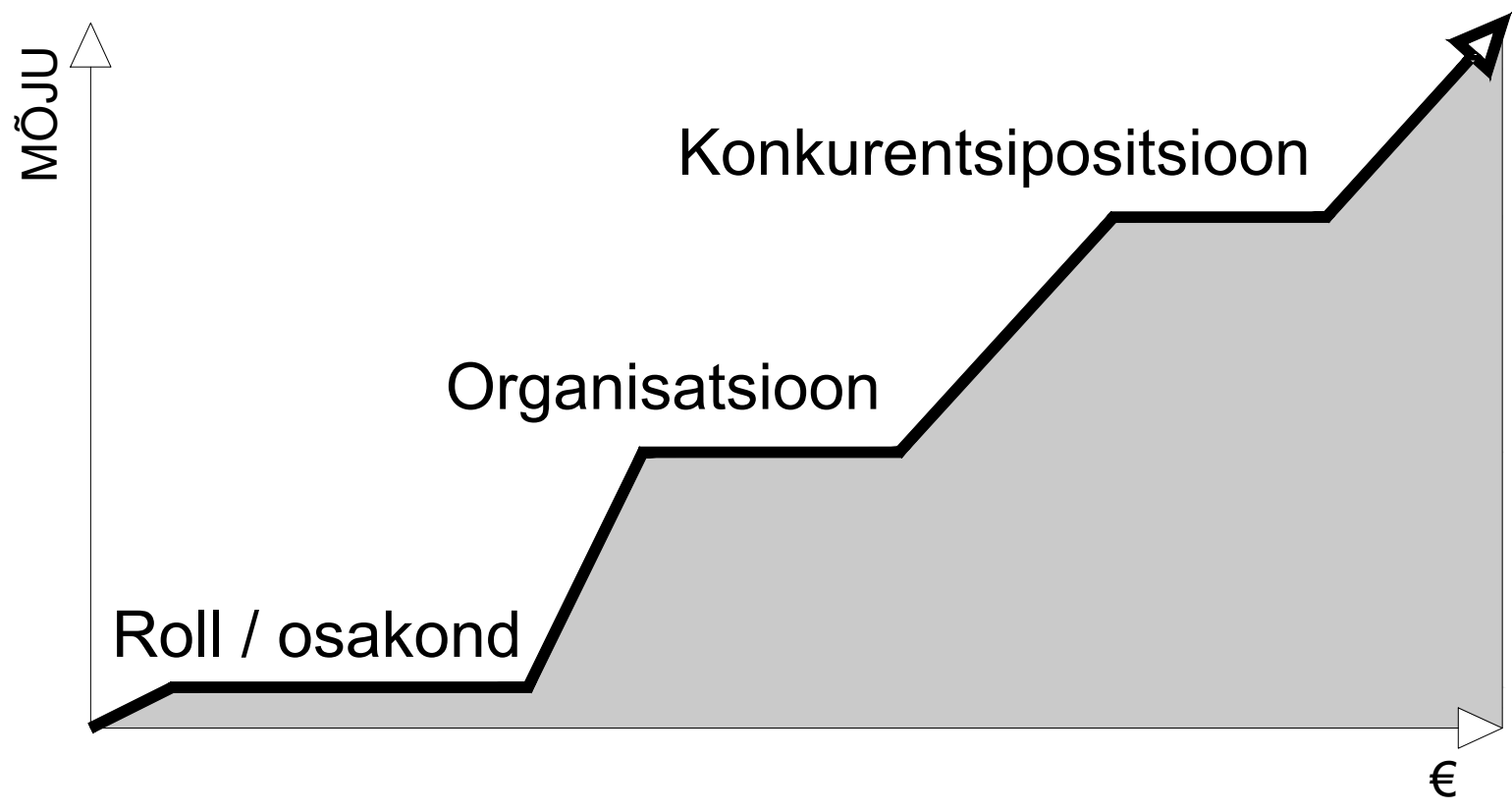


# Andmekvaliteeditesti tulemused

Hommikukohv - 61 vastajat



# AIMQ testist saadav kasu



# Kui hea on andmekvaliteet Sinu organisatsioonis?

Võta meiega ühendust\*:

Silver Rits  
silverrits@gmail.com  
51 38 186

Andrei Rjabtsev  
[andrei.rjabtsev@gmail.com](mailto:andrei.rjabtsev@gmail.com)  
50 96 398

\*Itera 6.aprilli hommikukohvil osalenutele IQA andmekvaliteeditest täismahus tasuta (kui annad teada enne 15.aprilli)!

**Rickman**

**Tänname!**