ALY 6060

Week 2: Data Analytics Culture within an Organization

Objectives

Explain how analyzing and displaying data in an analytics-driven culture is providing support to organizations to make good decisions with their data.

Define and describe the role of data scientist or data analyst in organizational decision making

Review Readings

1. Getting decision right right: How effective organizational decision-making can boost performance

2. Role of Data Science in strategy and decision making

3. Decision-Making: The impact of organizational culture

Readings Assigned to Each Student

READINGS	ASSIGNED STUDENTS
Getting decision rights right: How effective organizational decision-making can boos performance	1. **Abbu, Parveen** 2. **Amarnani, Kajal** 3. **Ambasana, Vasu Rakesh** 4. **Cao, Zeying** 5. **Carro Prieto, Andrea** 6. **Chen, Yujian** 7. **Kuche, Anurag** 8. **Kumar, Nishank** 9. **Li, Yisheng** 10. **Sethia, Saurabh** 11. **Shah, Dhruvin Rakesh** 12. **Shi, Yunshan** 13. **Xu, Chenqi** 14. **Yakkali, Sashank** 15. **Zhai, Binyu**
Role of Data Science in strategy and decision making	1. Patam, Charan Kumar 2. Pawar, Shruti Avinash 3. Premi, Pranshu Kumar 4. Ravichandran, Rishi Prasana 5. Sen, Tuhena 6. Sethia, Barkha Prakash
Decision-Making: The impact of organizational culture	1. **Sun, Jian** 2. **Thota, Sunil Raj** 3. **Wagner, Andres** 4. **Wu, Shanglin** 5. **Xiao, Yao** 6. **Xie, Jifei**

Identify	Identify a quote from the article that you were assigned that represents an essential point/concept about data culture for a data professional
Go	Go to Jamboard: https://jamboard.google.com/d/1Z1f30-YAGqXXHsoWCraxohWhF05gYGGXeKPEkjo-2n0/edit?usp=sharing
Navigate	Navigate to the Jamboard page for your article
Create	Create a new sticky note •Write your name •Type in the quote from your article, along with the page # (if applicable) •NO DUPLICATES!!

Instructions

You have 15 minutes to do this.

Identify	Identify which reading you were assigned
Read	Read your quote
Explain	Explain why you chose it and why it represents an essential point/concept about data culture for a data professional. How should a data professional use this information or concept?

In Randomly Assigned Groups:

Data-drive culture

- Goes beyond numbers, analysis, and charts.

- It's about reconfiguring your decision-making approach to align with fundamental business processes.

- Every department should be connected to the data.

Improving an organization's data-driven culture

- The data needs to be made available and regarded as the primary tool for daily decision-making by the entire organization.

- Being transparent with your analytic insights can shape data across the organization.

- Data literacy across the organization is needed: the ability to read, understand, create, and communicate data as information

- Knowing the right ways to analyze and prepare guidance resulting from the data can build commitment with stakeholders.

- The organization needs to be open to learning and adapting based on what the numbers tell them, vs assumption decision-making.
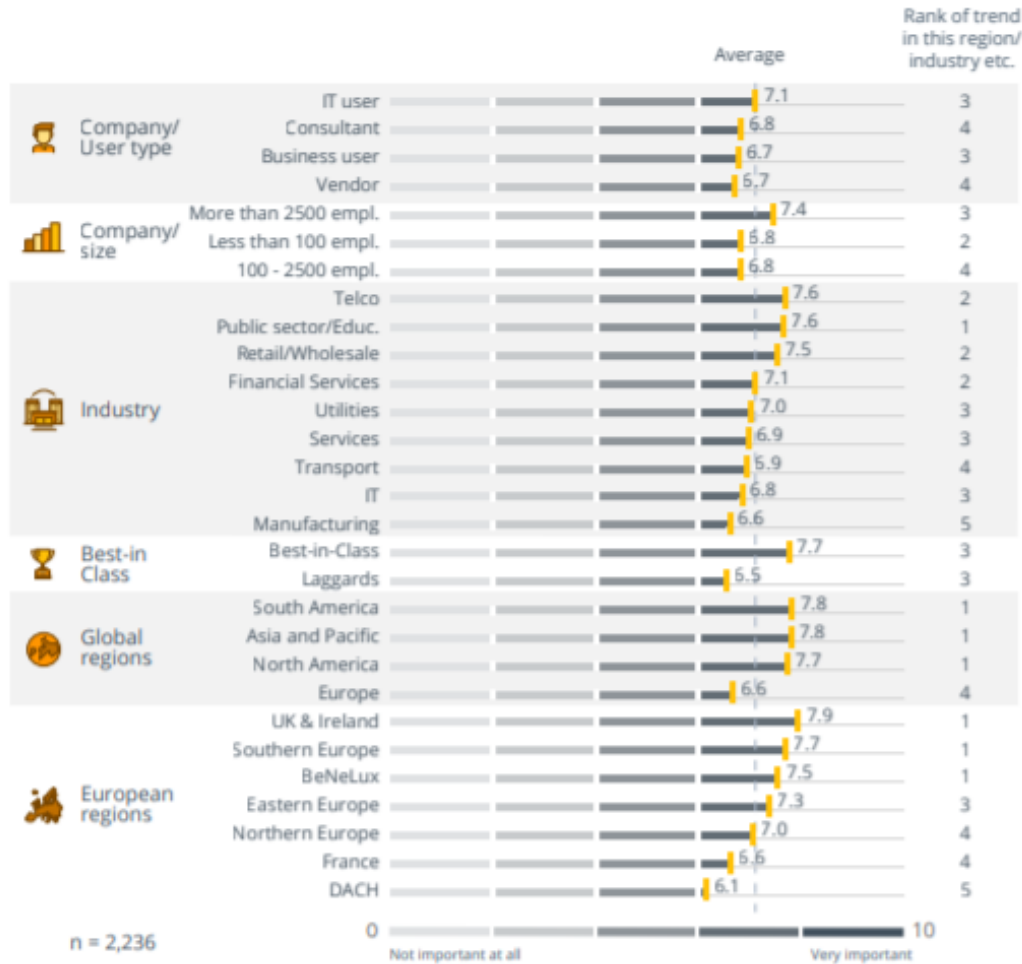
Upstreaming

- Upstreaming is the flow of resources or information or data from the lower-level employees up through to the CEO.

- Upstreaming drives the organization to ensure root cause analysis, identify and resolve issues and/or mitigate risks at that point.
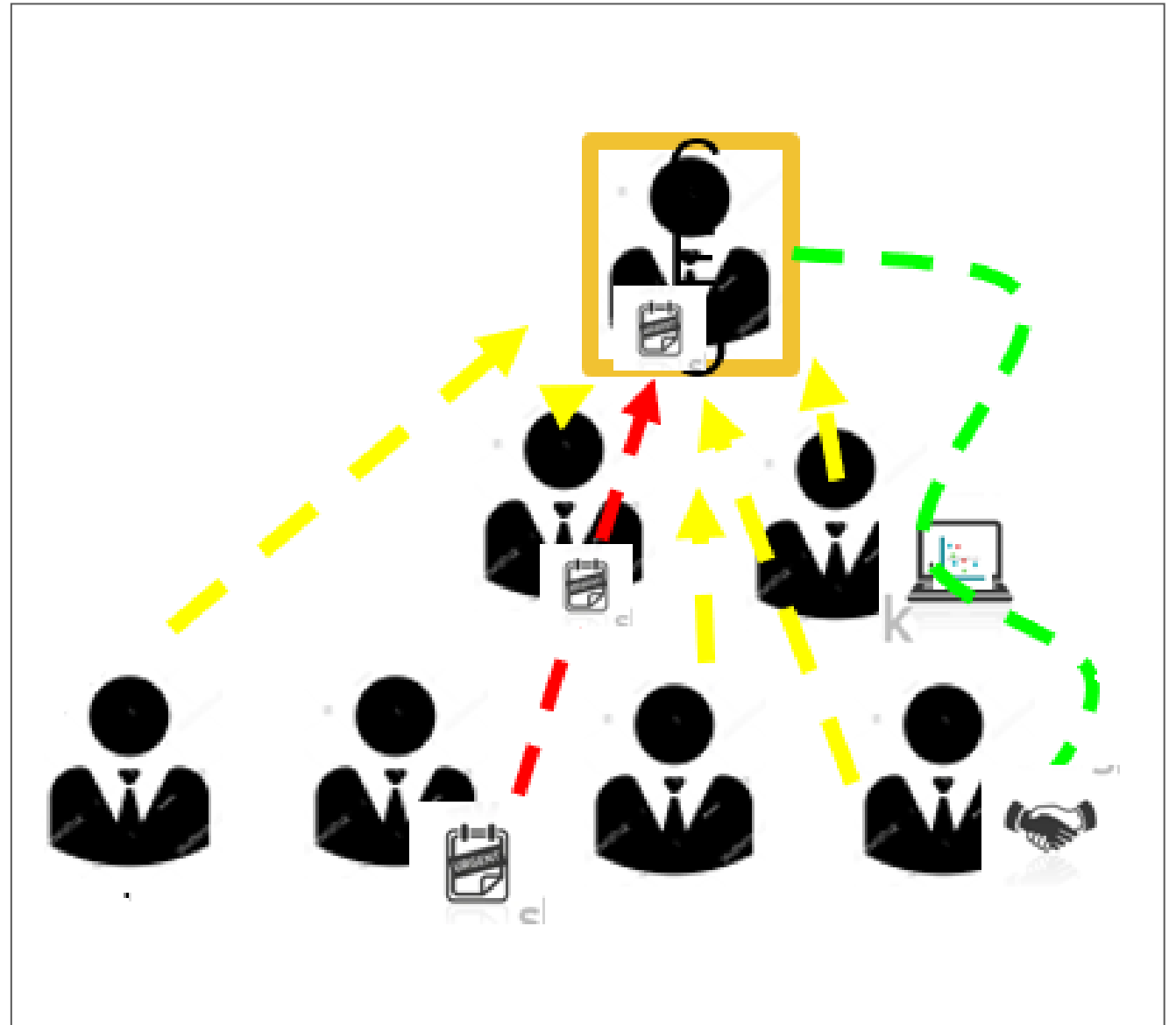
UK & Ireland and South America regard data-driven culture as very important. The DACH region is some way behind.

Data-Driven Culture

		Average	Rank of trend in this region/ industry etc.
Company/ User type	IT user	7.1	3
	Consultant	6.8	4
	Business user	6.7	3
	Vendor	6.7	4
Company/ size	More than 2500 empl.	7.4	3
	Less than 100 empl.	6.8	2
	100 - 2500 empl.	6.8	4
Industry	Telco	7.6	2
	Public sector/Educ.	7.6	1
	Retail/Wholesale	7.5	2
	Financial Services	7.1	2
	Utilities	7.0	3
	Services	6.9	3
	Transport	5.9	4
	IT	6.8	3
	Manufacturing	6.6	5
Best-in Class	Best-in-Class	7.7	3
	Laggards	6.5	3
Global regions	South America	7.8	1
	Asia and Pacific	7.8	1
	North America	7.7	1
	Europe	6.6	4
European regions	UK & Ireland	7.9	1
	Southern Europe	7.7	1
	BeNeLux	7.5	1
	Eastern Europe	7.3	3
	Northern Europe	7.0	4
	France	6.6	4
	DACH	6.1	5

n = 2,236

0 — Not important at all — 10 Very important

BARC | Viewpoint

One of the biggest shifts in today's business world is the transformation from isolated and project-oriented data usage to a completely data-driven enterprise. 'Data-driven' in this context means that as many decisions and processes within a business as possible are based on data. This concerns simple key figures such as revenue and profit, but also results from advanced analytics models. Moreover, both quantitative and qualitative data can be used to support the decision-making process, and decision-making on all levels – from operational to tactical and strategic – are affected. While companies have always been interested in their numbers, the extent of data use is exercised at a higher level within a data-driven culture. The main aim is to replace managers' gut feelings with data-derived facts and to empower all employees to actively use data to enhance their daily work. The goal is to fully utilize a company's potential by making decisions more successful, initiatives more effective and competitive advantages more striking.

However, a data-driven culture should not be interpreted as blindly following numbers. Key focus areas should be to enhance data interpretation skills and critical thinking. This enables businesses not only to base their decisions on data, but also to know when it is better not to do so.

Data, BI and Analytics Trend Monitor 2021

Assessing and understanding the culture is key

- Culture throughout organizations may vary, so the key is learning about the existing culture within the organization you work for before making data decisions or recommendations.

- It is essential to be aware of the culture as it drives processes, decisions, organizational structure, and other factors.

- As a person working within the data analysis team, you must know the culture and how it impacts data and your role within the organization.
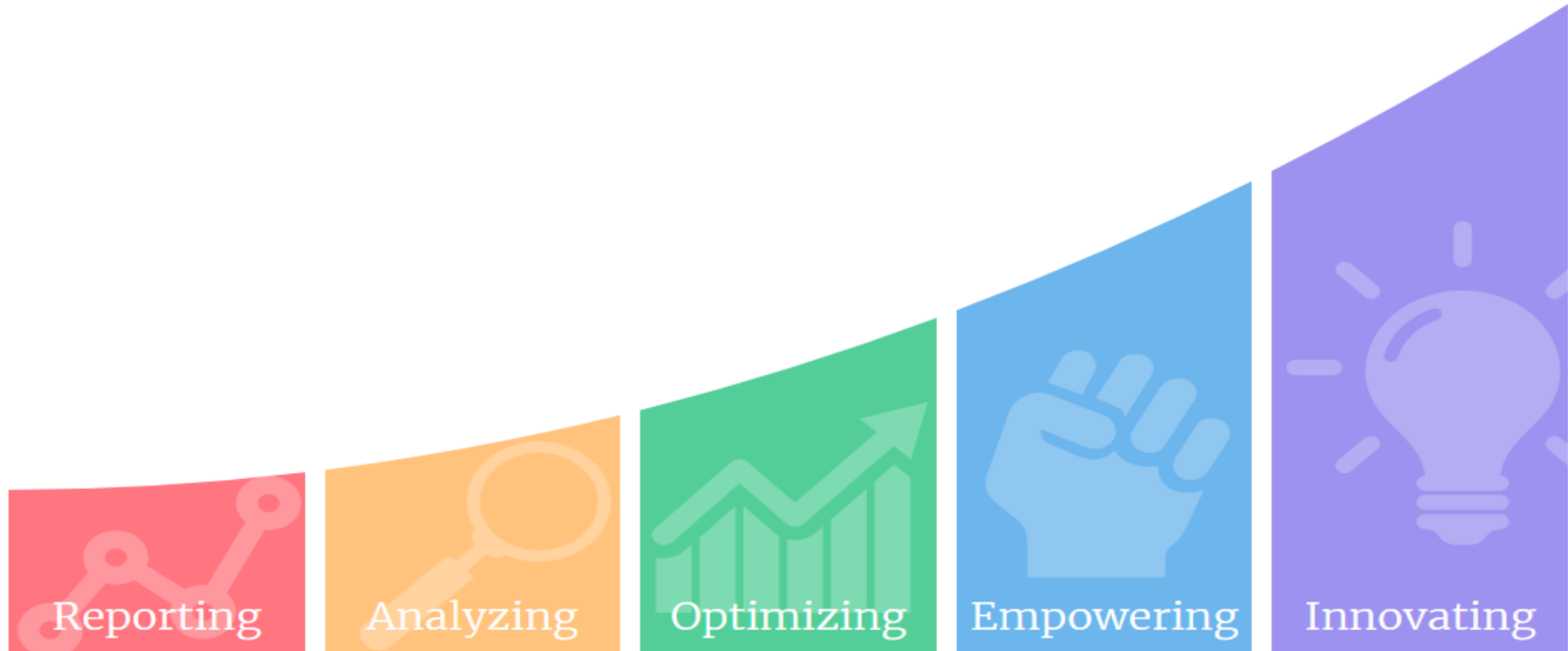
The 5✕10 Data-Driven Maturity Model

The 5✕10 Data-Driven Maturity Model describes the journey of an analytically impaired organization to an innovative organization capturing maximum value from their data.

5 stages of data-driven maturity

Reporting

Visualize existing data and create the foundation for an analytical future.

Analyzing

Dive deeper into the data to achieve insight into why things happened.

Optimizing

Optimize business processes by bringing analytical insight to operations.

Empowering

Empower employees by providing the tools and knowledge to perform analytical activities.

Innovating

Use data and experiments to innovate in products and transform the organization.

slido

Are you currently working for or have you ever worked for a business or organization?

slido

Reflect on this organization. What level of data-driven maturity do you think it is/was? (Check one below.)
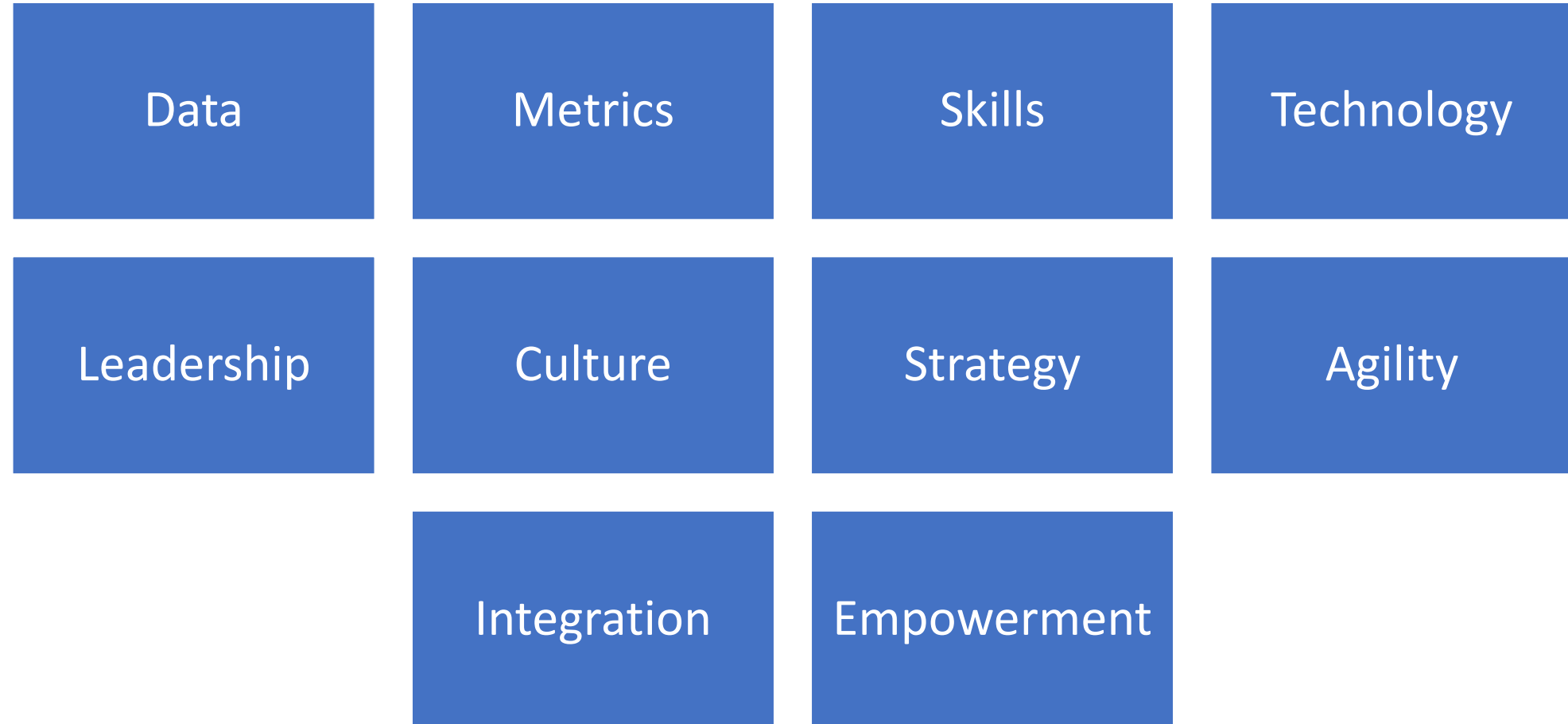
ⓘ Start presenting to display the poll results on this slide.

Reflect on This Organization

On what do you base your judgment?

10 dimensions of data-driven maturity

Data	Metrics	Skills	Technology
Leadership	Culture	Strategy	Agility
	Integration	Empowerment	

Assess the data-driven maturity of an organization you know

- Think of the organization you currently work for an organization with which you have been associated in the past.

- Evaluate that organization's data-driven culture by completing the ✗10 Data-Driven Maturity Assessment at https://data-driven.rubenbuitelaar.com/assessment/general

- The goal of the assessment is to gain insight into the data-driven maturity level of your organization in a fast and accessible manner.

- After the assessment a report will be compiled with the results and information tailored to your maturity situation.

Discuss

- How similar were your initial judgments and the result of the assessment?

- What did this assessment teach you?

- What surprised you about the content or formats of the results?

- In what ways would the information contained in the results be useful to a data professional?
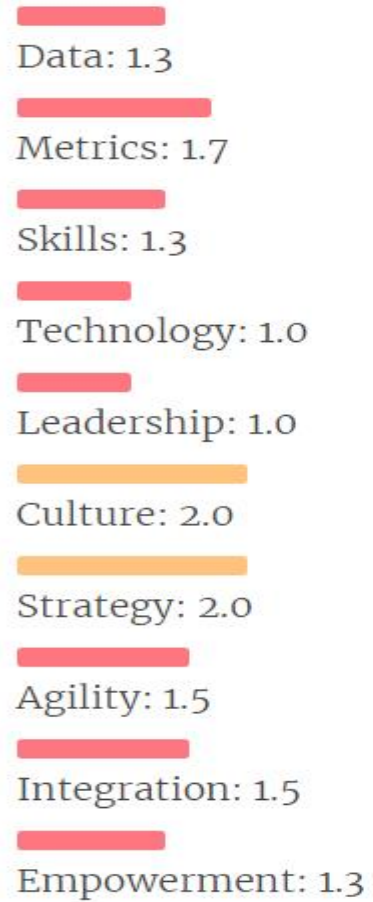
Results

Data-Driven Maturity Report
Score: 1.5/5

Organization: cep
Evaluator: susan gracia
Role: evaluator
Date: 20th of April, 2021

Reporting   Analyzing   Optimizing   Empowering   Innovating

Results

Data: 1.3

Metrics: 1.7

Skills: 1.3

Technology: 1.0

Leadership: 1.0

Culture: 2.0

Strategy: 2.0

Agility: 1.5

Integration: 1.5

Empowerment: 1.3

Results

- Recommendations for improving the data culture

- Sample:
  - https://data-driven.rubenbuitelaar.com/assessment/report?id=ff2bffc0-a202-11eb-a4f7-8b33bb40e893

Week 2 Homework

Stakeholders on an assignment have a vested interest in its outcome, and usually those outcomes are aligned with a business goal. Analytics assignment stakeholders in particular often have to use data to present recommendations directly to an executive or leadership official which means that as a data analyst it's critical that you maintain continuous stakeholder involvement and commitment. Write a report answering the following questions:

- What are some strategies you can use to help maintain the stakeholders' commitment and involvement throughout an assignment's duration?
- What might be some negative consequences of low stakeholder involvement?