



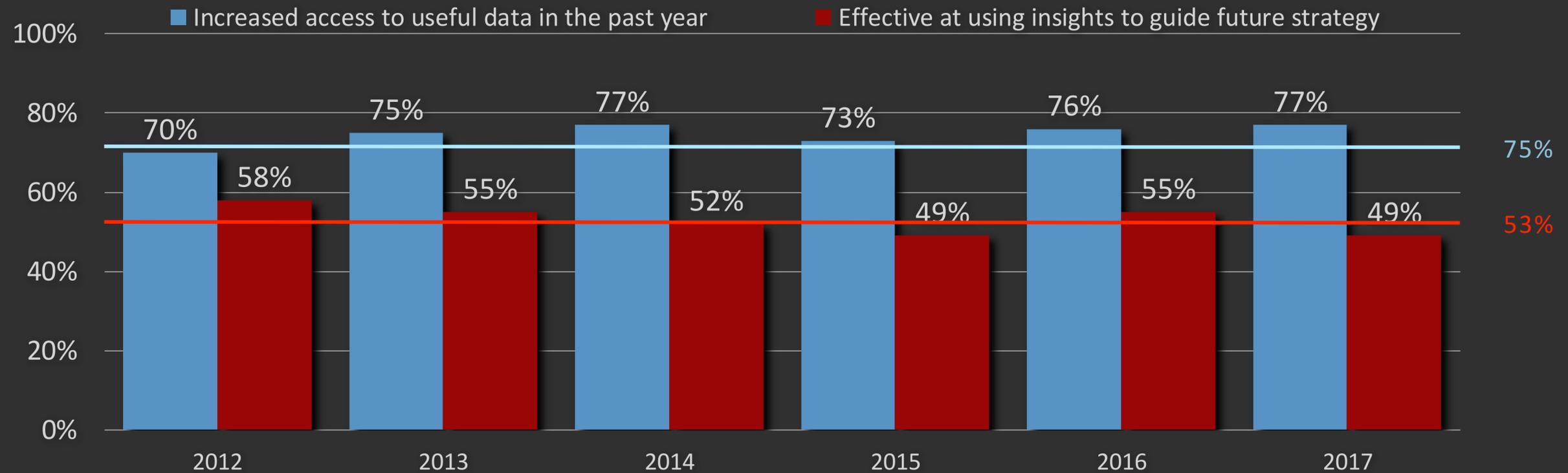
# **Measuring Organisational Data Capabilities**

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# Data on data isn't great

Percent of survey responses\* saying their organisation has / is



\*Ransbotham, S., & Kiron, D. (2018). Using Analytics to Improve Customer Engagement. *MIT Sloan Management Review*. (Note that this is a later version of the same data series shown in your reading for this lecture.)

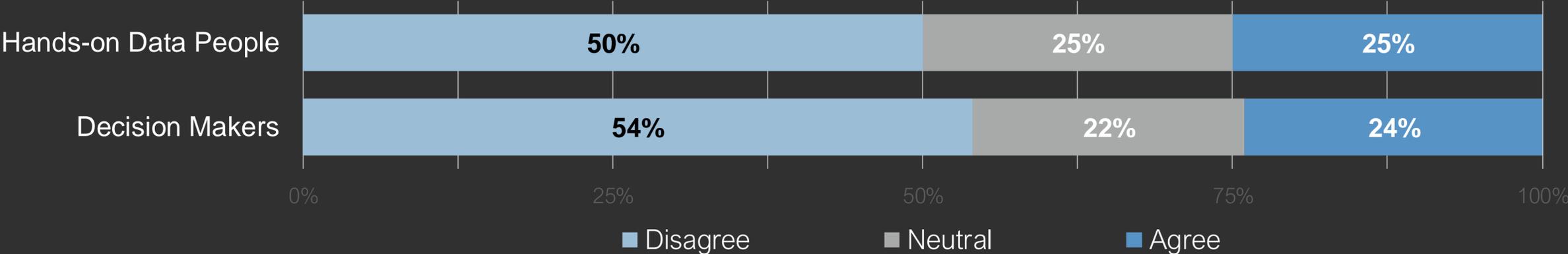
# Likely explanations:

- Poor alignment between hands-on data people and decision makers.
- Inadequate organisational data capabilities.

Inadequate tools and techniques seem unlikely to be the primary explanation, so are a lot of resources going in to solving the wrong problem?

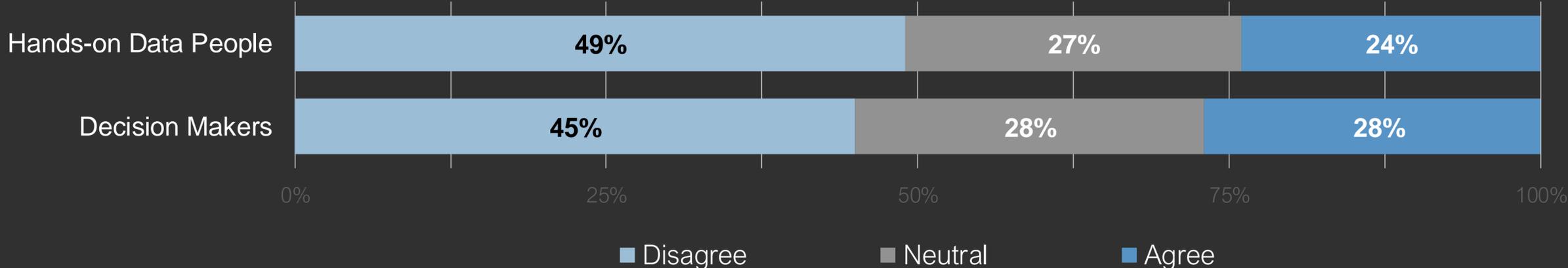
# A brief divergence on misalignment

Responses to the statement that in their organisation: “Decision makers and those who are hands on with data understand each other well”\*

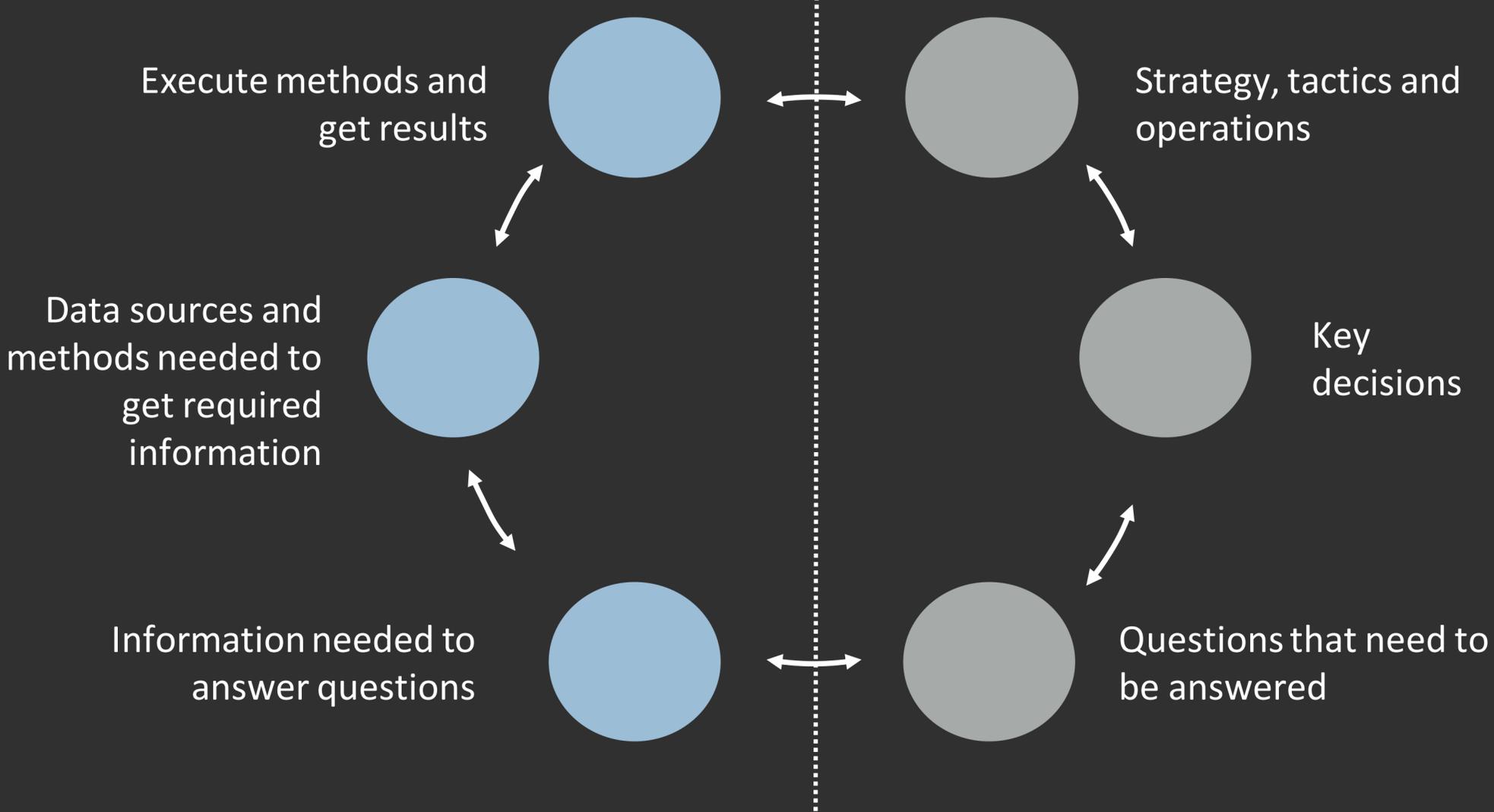


\* Gaffney, David. Leveraging data insights and personality traits in regards to organisational decision making. Victoria University MBA project

Responses to the statement that in their organisation: “People who make data insight requests normally get the most relevant information on the first try”\*



# Decision makers focus on the general; data people focus on the specific



# The data capabilities paradox:

Data people value measurement and data, and data capabilities are perceived as increasingly important to public- and private-sector organisations, and yet there isn't a generally accepted definition or measure of organisational data capabilities.

So how do we know if, or how much, we're improving on a thing we can't really define or measure?

# What about existing data maturity models?

Most don't adequately address all of these challenges:

- There are multiple types of data, data applications, and skills required to work with data and an organisation that's good with one won't necessarily be good with others.
- In organisations of any size, data is often distributed and used across the organisation, so it's unlikely that any one individual has a full sense of an organisation's true data capabilities.
- Data capabilities may not change in only one direction.
- Most organisations don't segregate out big data from other data, but a lot of maturity models do.

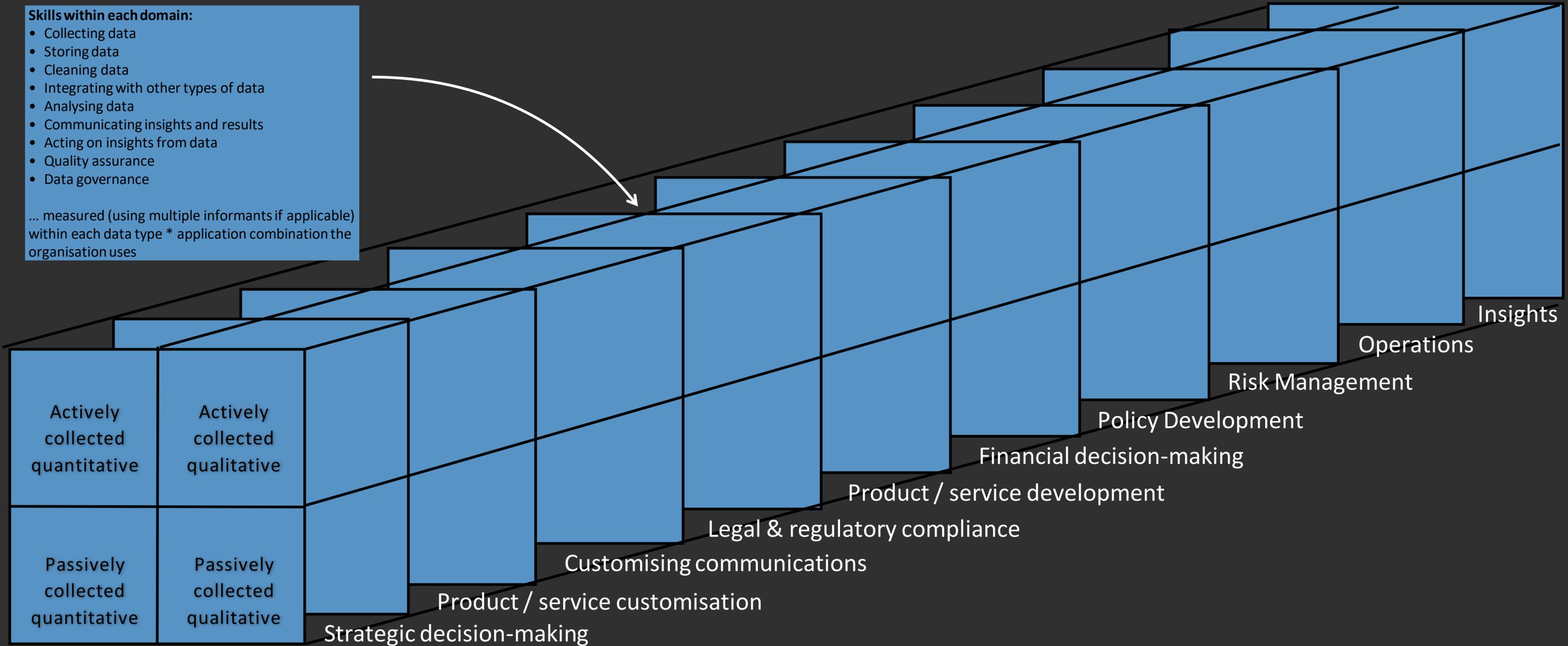
# Aims of this research programme:

- Create a framework to provide participating organisations with information about where their current strengths and weaknesses are with respect to data capabilities, how those are tracking over time, and how their data capabilities compare to other organisations (by industry, country, type of organisation, etc.).
- Generate the data required to get a sense of the overall data capability landscape, including how organisational data capabilities vary by country, sector, organisation size, etc.
- Identify relationships between organisational data capabilities and context-appropriate performance outcomes.
- Identify barriers to the development of data capabilities (e.g. organisational structure or culture, employee education and training, etc.).

**Skills within each domain:**

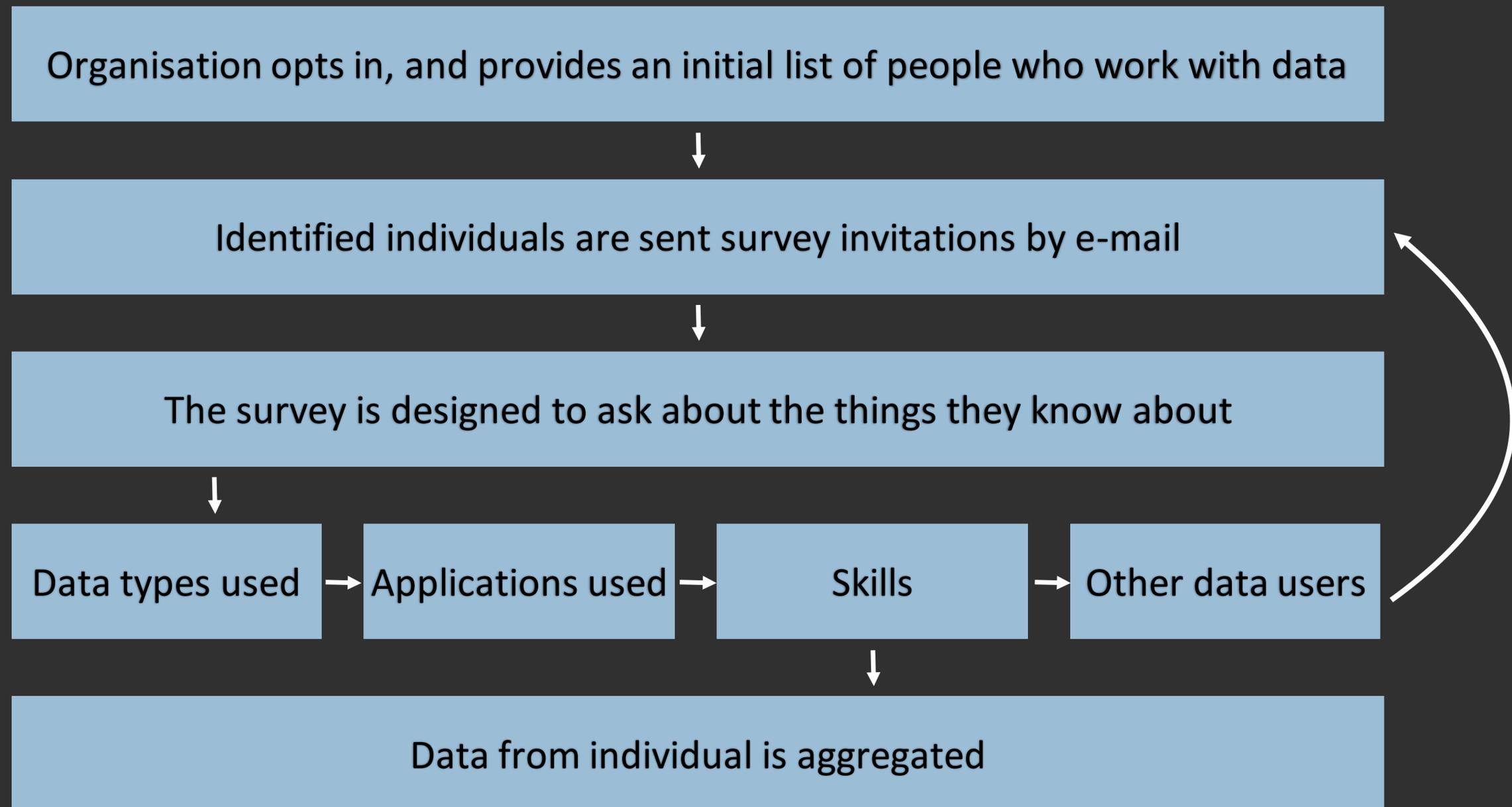
- Collecting data
- Storing data
- Cleaning data
- Integrating with other types of data
- Analysing data
- Communicating insights and results
- Acting on insights from data
- Quality assurance
- Data governance

... measured (using multiple informants if applicable) within each data type \* application combination the organisation uses



# Data Capabilities Framework

# Data capabilities measurement:



# Early Results

## Benchmark for large New Zealand public sector organisations

Applications	Passive Qualitative	Passive Quantitative	Active Qualitative	Active Quantitative	Average
Legal & regulatory compliance	60	67	61	66	64
Strategic decision making	63	63	63	64	63
Financial decision making	60	59	60	62	61
Insights	60	61	62	65	62
Product / service development	58	61	62	62	61
Product / service customisation	54	59	60	62	60
Customising communication	65	62	59	59	60
Operations	54	61	62	63	61
Policy making	58	64	62	65	63
Risk management	60	64	64	67	65
Average	59	62	62	64	62

n = 6 organisations; 97 people

20 totally inexperienced; 21-40: novice; 41-60: intermediate; 61-80: advanced; 80 -100 expert

# The Early Results:

## for large New Zealand public sector organisations

Skills	Passive Qualitative	Passive Quantitative	Active Qualitative	Active Quantitative	Average
Collecting data	59	65	63	66	64
Storing data	60	64	63	65	64
Cleaning data	58	58	58	61	59
Integrating data	55	55	57	59	57
Analysing data	62	65	64	66	65
Communicating data	56	59	60	61	60
Using data for application	58	62	63	64	63
Quality assurance	60	61	61	62	61
Data governance	63	71	68	70	69
Average	59	62	62	64	62

n = 6 organisations; 97 people

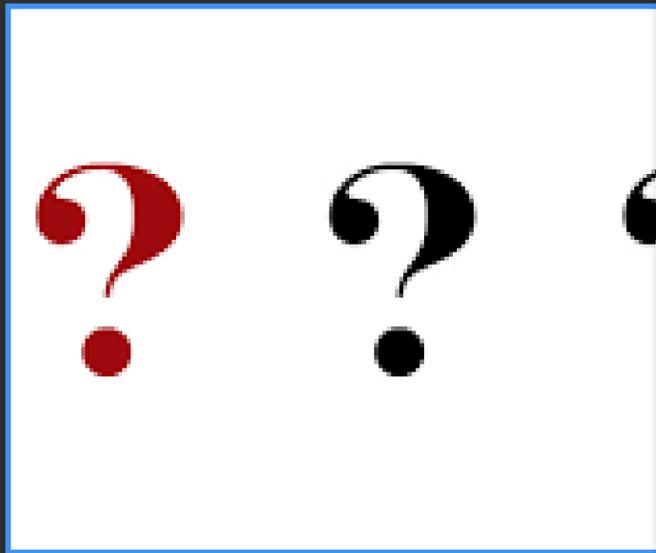
20 totally inexperienced; 21-40: novice; 41-60: intermediate; 61-80: advanced; 80 -100 (expert)

# Lessons learned so far:

- The multi-informant aspect is critical in an organisation of any size.
- Getting a sufficient number of responses requires stakeholder support and an internal communications plan.
- Many organisations would like reporting on the sub-organisational level.
- Automation is needed for scalability.

# Next steps:

- Scale the process:
  - Almost finished for the technical aspects.
  - Need to determine how to increase the participation rate within organisations.
- Do a larger round of data collection with more organisations to make it possible to create more benchmarks and also do cross-sector comparisons.
- Identify relevant outcomes that are common enough to start to check for associations between data capabilities and relevant organisational outcomes.
- Incorporate the framework into organisational planning and development processes (both for immediate utility and to start to identify where there may be barriers to improving data capabilities).



Questions or  
contact info to  
get involved



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