

# Let's talk about EKG



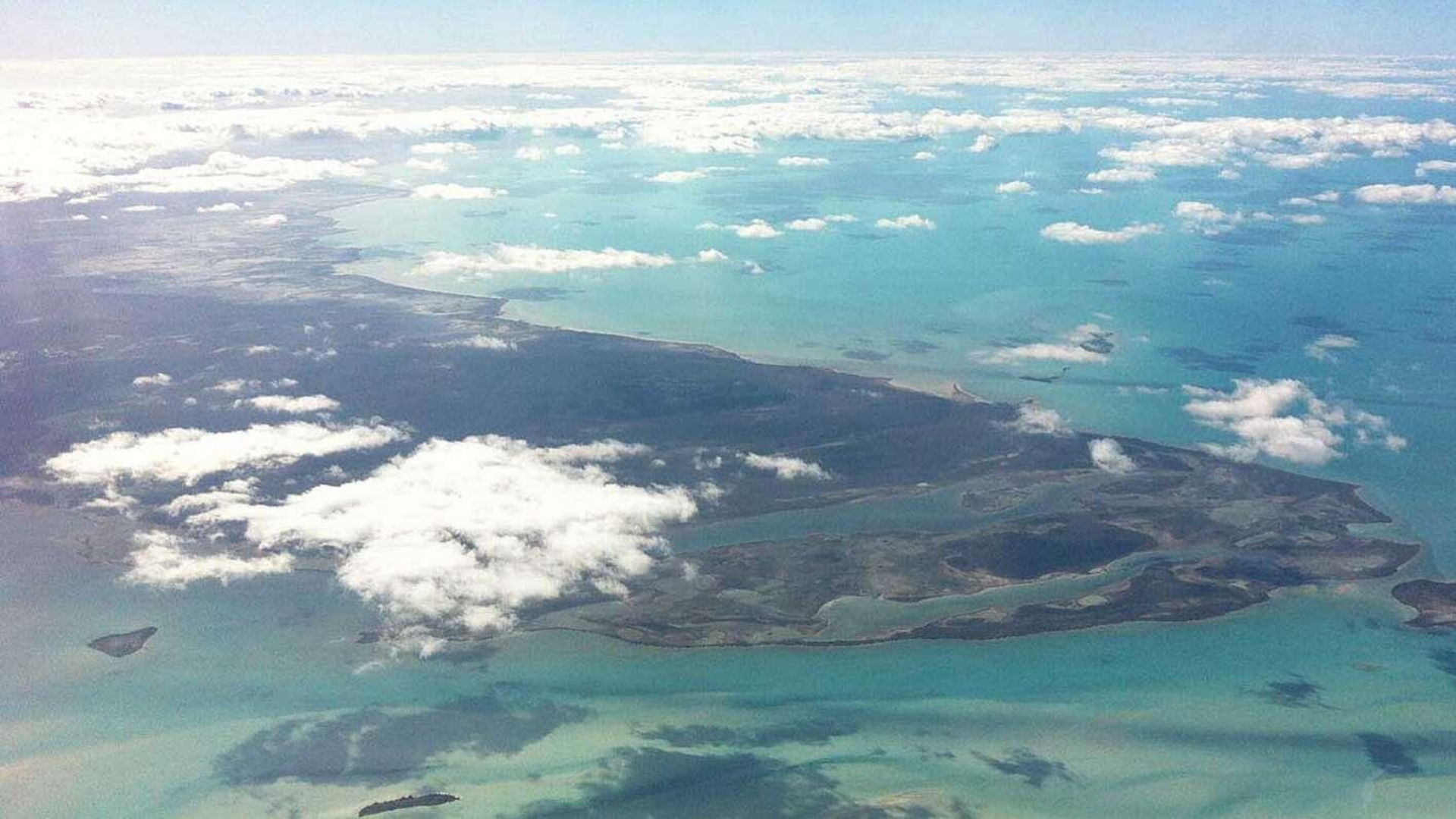
STARDOG



## INTRODUCTIONS:



**Mike Grove**  
**Founder & SVP of Engineering, Stardog**





**“Research shows that businesses built on and driven by insights from data grow on average at more than 30% annually and at least eight times faster than global GDP.”**

Data Trends: What should the data analytics market expect in 2022?



STARDOG

According to a survey of 190 executives by Accenture Research,

**only 32%**

of companies surveyed are realizing tangible & measurable value from data.

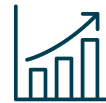


# Data-driven companies are realizing tangible benefits



**77%**

are using data across their organization to reimagine products and services.



**70%**

are seeing tangible and measurable value from data, e.g., operations excellence, optimized customer experience,



**60%**

are using data as a business case to reduce internal reporting and operational costs.



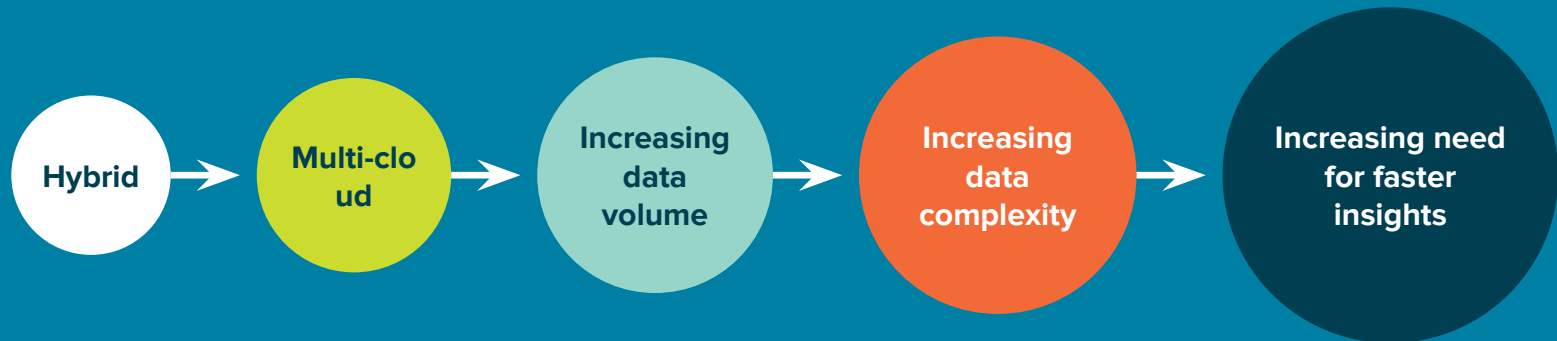
“Despite 70 percent of organizations citing that they want to be more data-driven now, **95%** still **struggle with operational challenges** around data and analytics and **88%** continue to be **hindered by legacy technologies.**”

The 'Data and Analytics in a Digital-First World' IDC report.

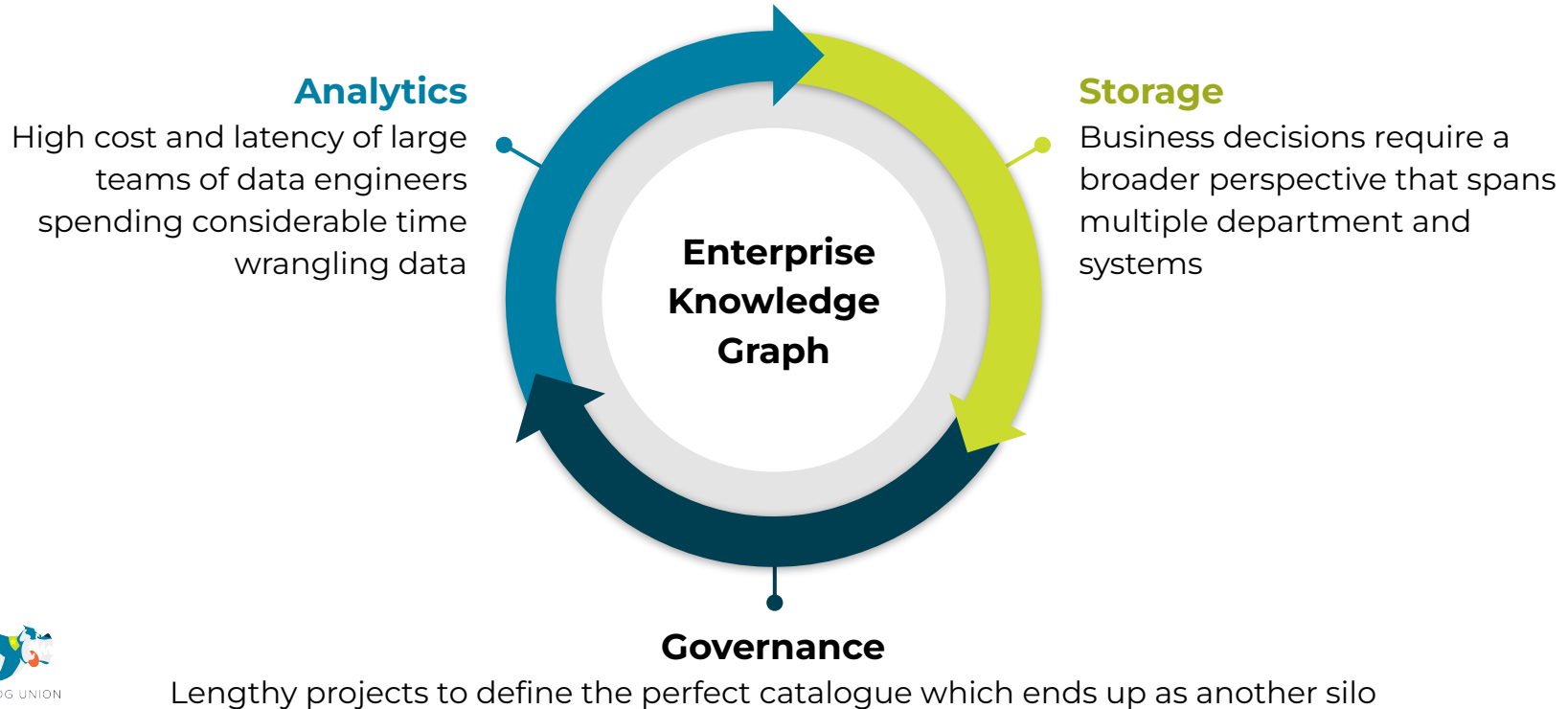


# Data silos and disconnected data are the problem.

- There's a lot of data: **59 zettabytes** of new data in 2021 alone... 90% of that data will be replicas or copies.
- Data lives in disconnected systems that don't talk to each other: on-prem, hybrid, and multi cloud environments.
- Enterprises struggle to connect the data that matters to drive change and derive insight.
- Disconnected data means slow time to insight means lost dollars.



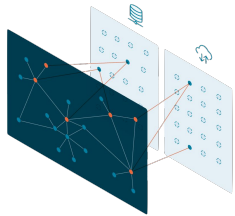
# Navigating the Enterprise Bermuda Triangle



# What are the most important capabilities of an Enterprise Knowledge Graph platform?

## Virtualization

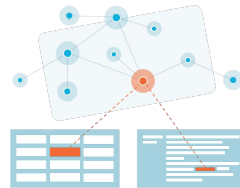
**STOP copying data** every time you have a new business challenge to solve.



Reduce the time, resources, and costs of deploying data for advanced analytics

## Semantic Graph

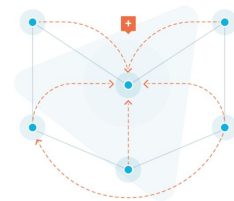
The most **flexible enterprise abstraction** layer for data to solve today's toughest business challenges.



Define the data model in relation to the meaning, not the structure, of the data.

## Inferencing

Generate **more connections** to **further enhance** the network effect of your analytics



Capture, store, share, and enrich metadata using ML and reasoning,

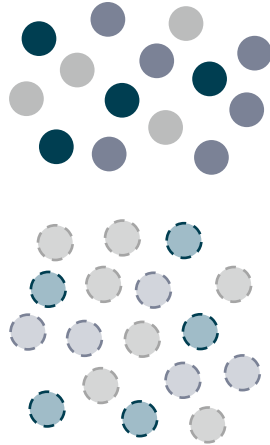
# EKG connects data **where it lives** for better insights faster.

## Data Silos



- Critical data is physically stored in different places, including in 3rd-party sources, and also exists in many structures – tables, code, PDFs, etc.

## Ingest or Virtualize



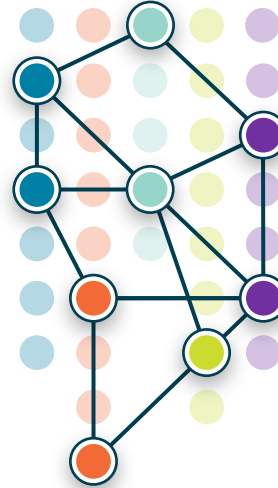
- Stardog unifies data from these sources, offering flexibility between ETL or virtualization
- Virtualization offers cost-efficient scalability

## Enrich



- Encoding metadata in your Knowledge Graph adds real-world context to your data

## Infer

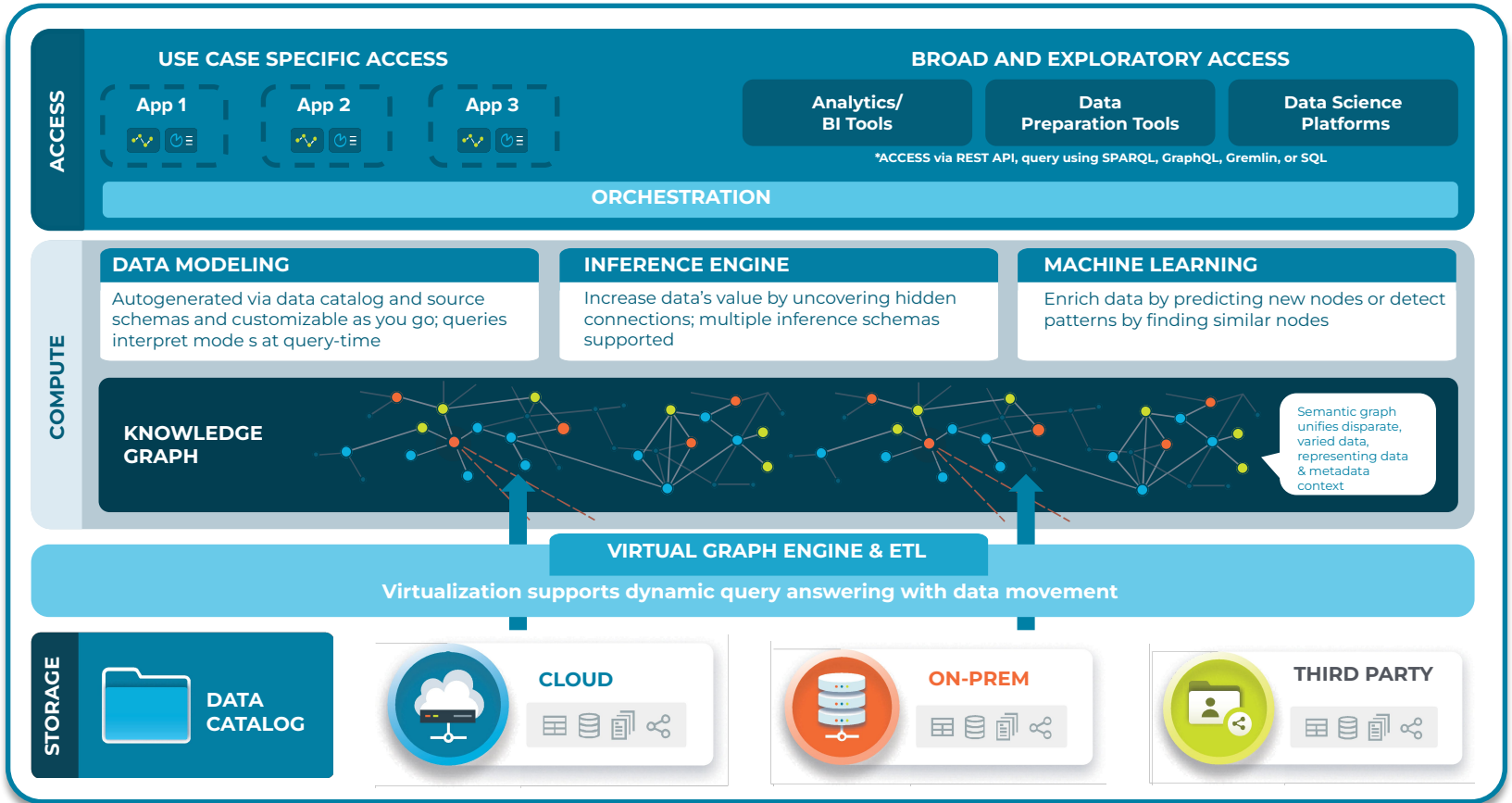


- Stardog's Inference Engine augments your data with new knowledge
- Full explainability means you can see the logic behind these additions

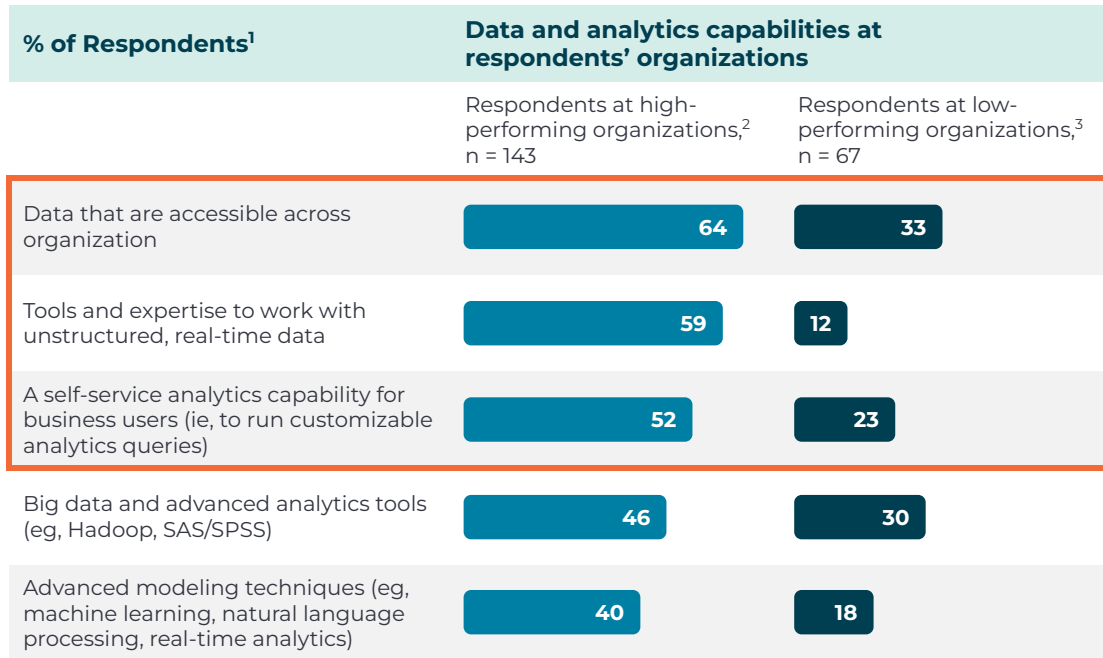
## Analyze & Visualize



- Analyze data with any BI or SQL-based analytics tool.
- Stardog is the only graph platform to support a native graph query language, SQL, and GraphQL



# Data & Analytics: Getting it Right



The need to lead in Data & Analytics - Mckinsey & Co

“

**"High Performing organizations are twice as likely to make data accessible across the organization"**

**- Mckinsey & Co.**

# Center of Gravity shift for D&A

## By 2024,

**50%** of new system deployments in the cloud will be based on a cohesive cloud data ecosystem rather than on manually integrated point solutions.

organizations that utilize active metadata to enrich and deliver a **dynamic data fabric** will reduce time to integrated data delivery by

**50%** and improve the productivity of data teams by **20%**.

According to Gartner...

## By 2025,

**graph technologies** will be used in **80%** of data and analytics innovations, up from 10% in 2021, facilitating rapid decision making across the organization.



In a data fabric approach, one of the most important components is the development of a **dynamic, composable and highly emergent knowledge graph** that reflects everything that happens to your data. This core concept in the data fabric enables the other capabilities that allow for dynamic **integration** and data use case orchestration

**Gartner – How to Activate Metadata to Enable a Composable Data Fabric**



# Demo

# Challenge Time

# Accessing the Demo

- Go to <https://cloud.stardog.com>
  - Create a Stardog Cloud Account
  - Add New connection
    - Endpoint URL: <https://express.stardog.cloud:5820>
    - Username/password: anonymous/anonymous
- Or use [this link](#)
- Use the `kgc-demo` database
- For accessing Advanced Query Preview:
  - <http://explorer.stardog.com/kgc-demo/index.html#/>

# May the Knowledge Graph Be With You

1. How many X-Wings participated in the Battle of Yavin?
2. Bonus: Name 3 pilots

# Summary

# Why is a knowledge graph worth it?

1. Data of any structure can be connected and made machine-understandable
2. Data from existing data management systems can be incorporated, in place
3. Easy to adapt to changes and accommodate multiple viewpoints using a flexible data model
4. Machine-understandable definitions allow you to discover previously unknown connections and explain how they were derived

**76%** of executives demand strategic insights from IT

*McKinsey, "Partnering to shape the future--IT's new imperative"*

**65%** reduction in data quality and data mastering ongoing operations costs

*Gartner, "Top Trends in Data and Analytics for 2021: Data Fabric Is the Foundation," Mark Beyer et al, 16 February 2021*

**Graph leads to up to a 96%** reduction in code.

*Gartner, "What is 'Graph?' - An Elementary Version for the Uninitiated," Mark Beyer et al, 7 December 2020*

# EKG is the future of data management

EKG  
drives  
**\$9.8mm** in ROI  
over 3 years from:

## **Improved Productivity of Data Scientists and Data Engineers:**

Improved productivity of data scientists by 75–95% or **\$3.8 million** in benefits.

**Faster Analytics Development:** Analytics innovations were completed **2 to 3 times faster** with Stardog compared to using traditional relational or other graph technologies.

**Infrastructure Savings:** saved **\$2.6 million** in data infrastructure costs from avoided copying and moving data and improved query performance on lower-cost hardware.

**Increased Profits:** made **\$2.4 million** from analytics projects due to enhanced quantity, quality, and speed of insights with Stardog to unlock new business opportunities.





Thank you!

**Get started with EKG @**  
<https://cloud.stardog.com>

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LinkedIn: michaelgrove