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Rethink Data: Put More of Your Business Data to Work—From Edge to Cloud

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In this InfoBrief

The data and analysis in this InfoBrief is condensed from a Seagate Technology report that draws on a global web survey conducted by the independent research firm International Data Corporation (IDC). Seagate commissioned IDC to conduct research via a survey. Seagate and IDC have compiled and interpreted the survey findings.

Survey Demographics:

1,500
respondents queried

from mid-sized businesses to enterprises

CIO, CTO, IT VP, Director, Executive, COO/LOB, Storage Architect, and Solution Architect

The Global Data Explosion

Data growth and data sprawl continue to be unprecedented in volume.

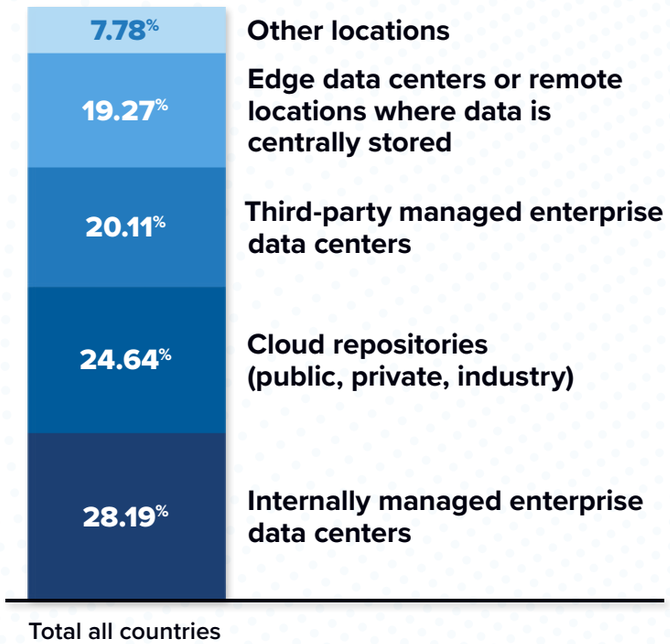
Survey findings show that in just two years, from the beginning of 2020 through the beginning of 2022, enterprises will see a **42.2% annual increase in the volume of generated data.**

Factors driving tremendous growth of stored data:

- **increasing use of analytics**
- **proliferation of IoT devices**
- **cloud migration initiatives**

Data sprawl reflects how business data is scattered.

Where data will be stored in 2 years:



Source: The Seagate Rethink Data Survey, IDC, 2020

The Rise of Edge Computing

By 2025...

44% of data will be created in the core and edge, driven by analytics, artificial intelligence, and deep learning, and an increasing number of IoT devices feeding data to the enterprise edge.

nearly 80% of the world's data will be stored in the core and edge, up from 35% in 2015.

IDC predicts 12.6 ZB of installed capacity—HDD, flash, tape, optical—will be managed by enterprises.

Cloud service providers will manage 51% of this capacity.

What does this mean for enterprises?

- It means greater extent of data sprawl, which enterprises are increasingly tasked to manage.
- An increasing amount of storage will be expected to be compute-conversant—and eventually offering compute functions.
- The edge is expected to store critical data and insight that fuels latency-sensitive requests from endpoint transactions and services.
- At the same time, the edge will make possible distributed computing to perform analysis of streaming data.

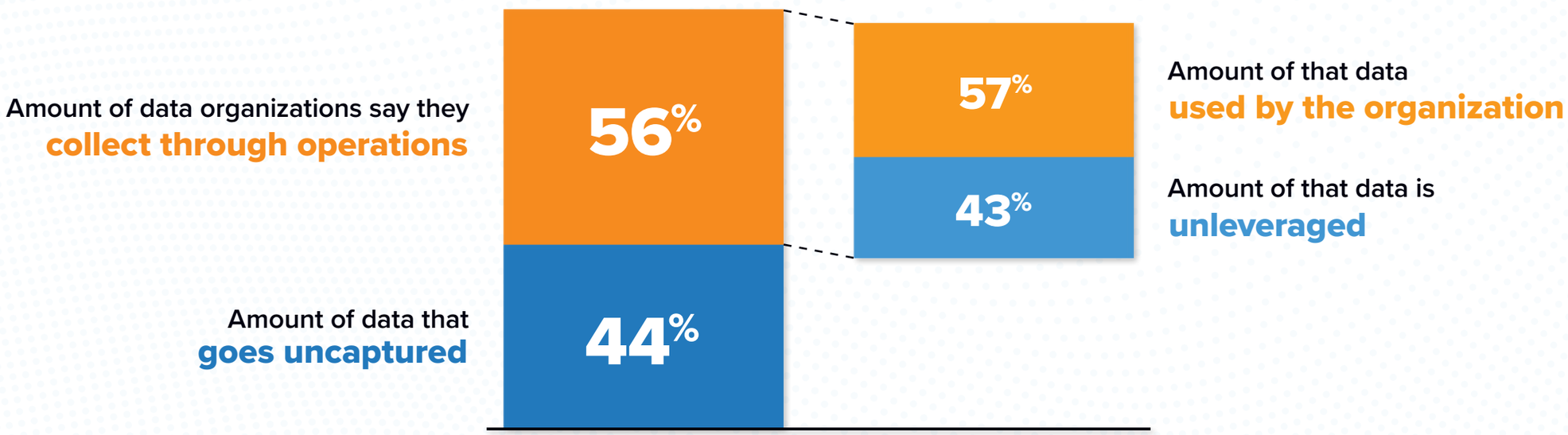
Source: The Global StorageSphere, IDC 2020

Missing the Value of Data

The *Rethink Data* survey found that organizations report much of their business data is not used or activated.

While the data offers value, that value too often goes uncaptured.

How Much Data Actually Gets Used?



Source: The Seagate Rethink Data Survey, IDC, 2020

Top 5 Barriers to Putting Data to Work

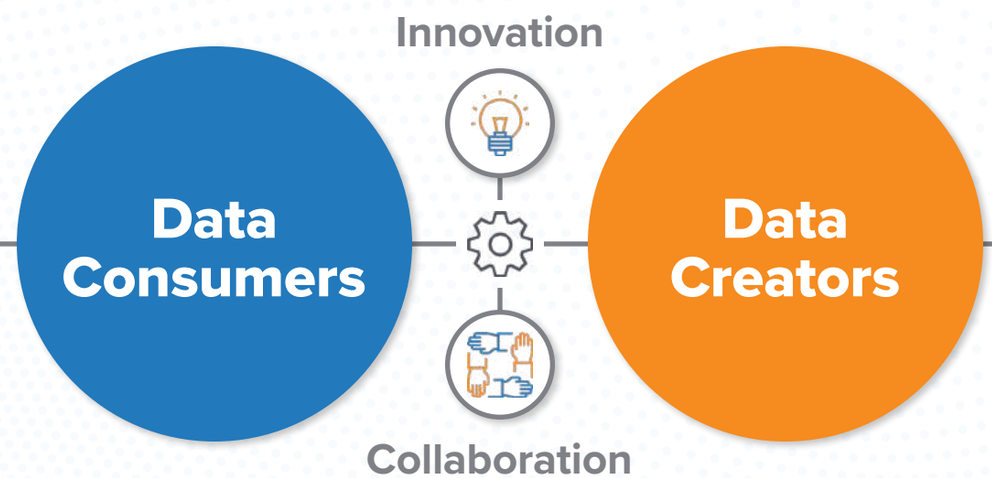
Survey respondents reported obstacles in:

1. Ensuring that needed data is collected in the first place
2. Managing the storage of collected data
3. Ensuring the security of collected data
4. Making collected data usable
5. Making the different silos of collected data available

Managing the Data Deluge Going Forward: DataOps

A key solution to data management headaches is establishing DataOps—a discipline of connecting data consumers with data creators to enable collaboration and accelerate innovation.

Data consumers within business units are responsible for driving the organizational decision making, whether toward product development, product distribution and marketing, cost control, operations, etc.

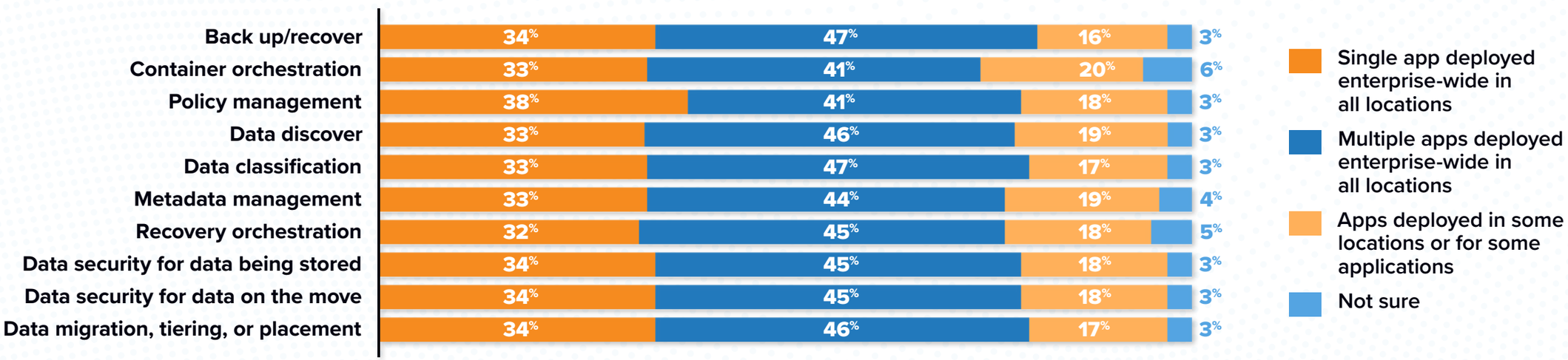


Data creators can be machines such as endpoint devices and IoT devices, as well as people who generate the reports and information that is fed to decision makers.

Utilizing Technology and ELT-like (Extract. Load. Transform) Data Functionality

DataOps utilizes technology, particularly artificial intelligence (AI) and machine learning (ML), to assist in correlating data from core, cloud and edge data sources. It also utilizes ELT-like data ingest functionality to pull data from multiple sources and load into a common structure, typically in the form of a data lake.

Approach Used to Deploy Tools or Applications for Data Management Functions

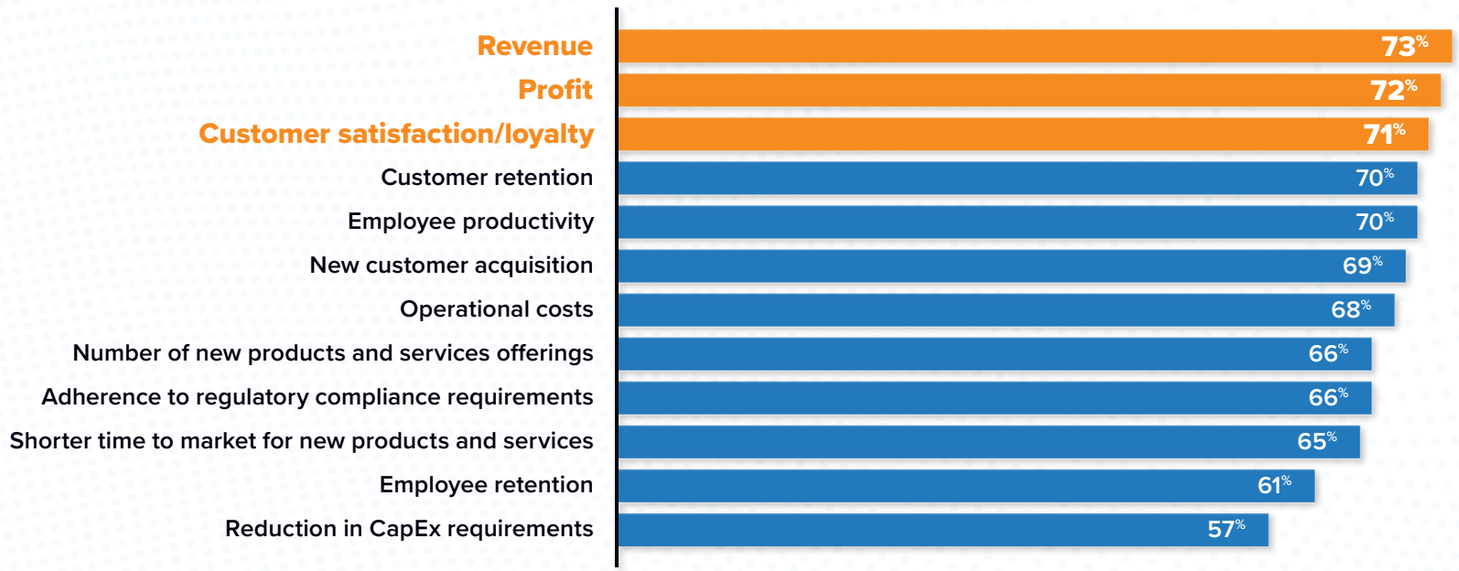


Source: The Seagate Rethink Data Survey, IDC, 2020

Better Data Management Equals Better Business Outcomes

DataOps and other data management solutions such as analytics-enabled data orchestration and data architecture lead to better business outcomes, including improved customer loyalty and profit.

Top Metrics Used to Assess Success of Data Management and Analytics



Improved revenue, profit, and customer satisfaction/loyalty would be a trifecta of better business outcomes for most organizations.

But better results due to data management and analytics were seen across the enterprise: better employee retention and productivity, lower costs and improved regulatory compliance. Among the more proactive results is improved new-customer acquisition, a key to revenue growth.

Source: The Seagate Rethink Data Survey, IDC, 2020

Data Security: The Achilles' Heel of DataOps

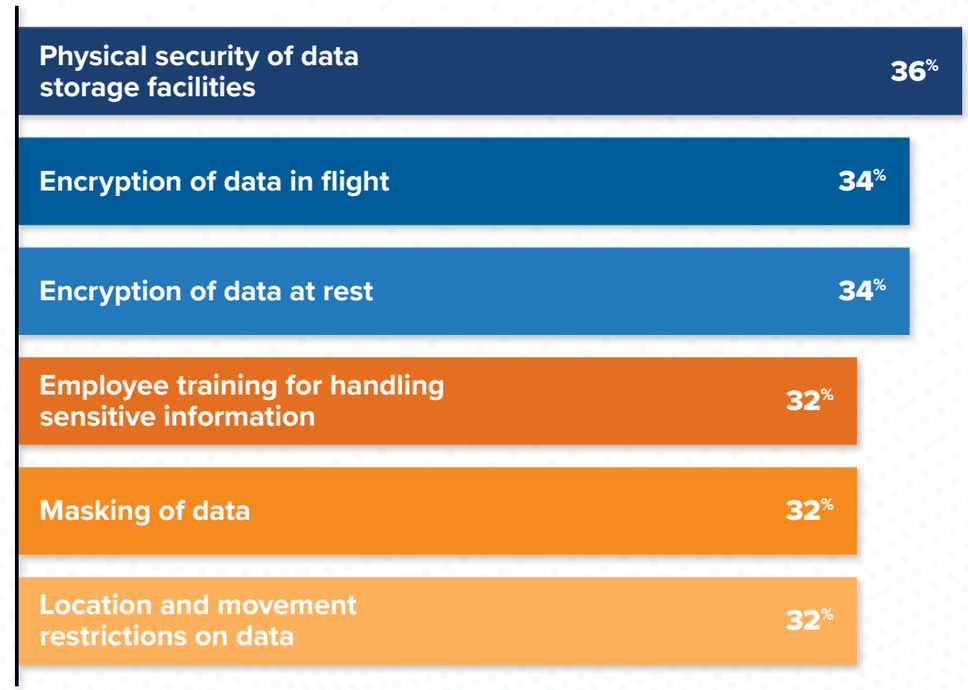
Two-thirds of survey respondents report their data security is insufficient, making security an essential element of any discussion of efficient data management.

Data breaches lead to direct financial losses, significant regulatory fines, reputational loss and embarrassment, lost customers, and more.

Malware can result in the theft of corporate secrets, lost employee productivity, unrecoverable data, and, in the case of ransomware, financial loss and embarrassment.

Yet the organizations surveyed **have not implemented common data security practices enterprise-wide.**

Reported Degrees of Implementation of Data Security Practices

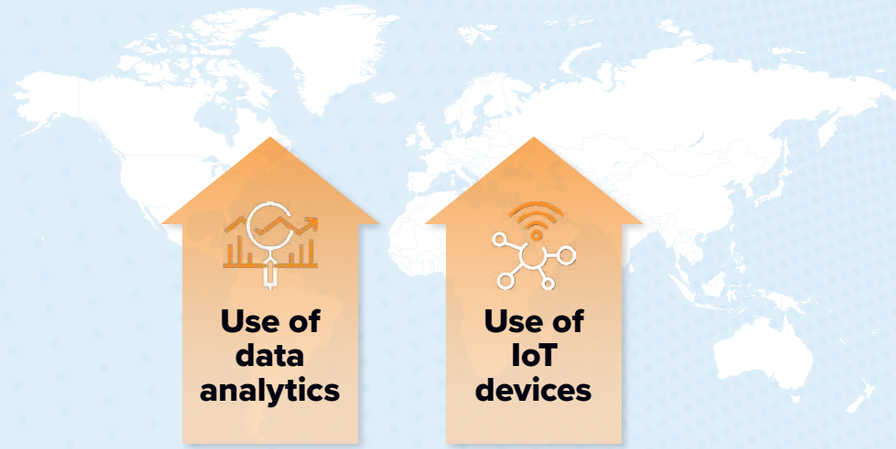


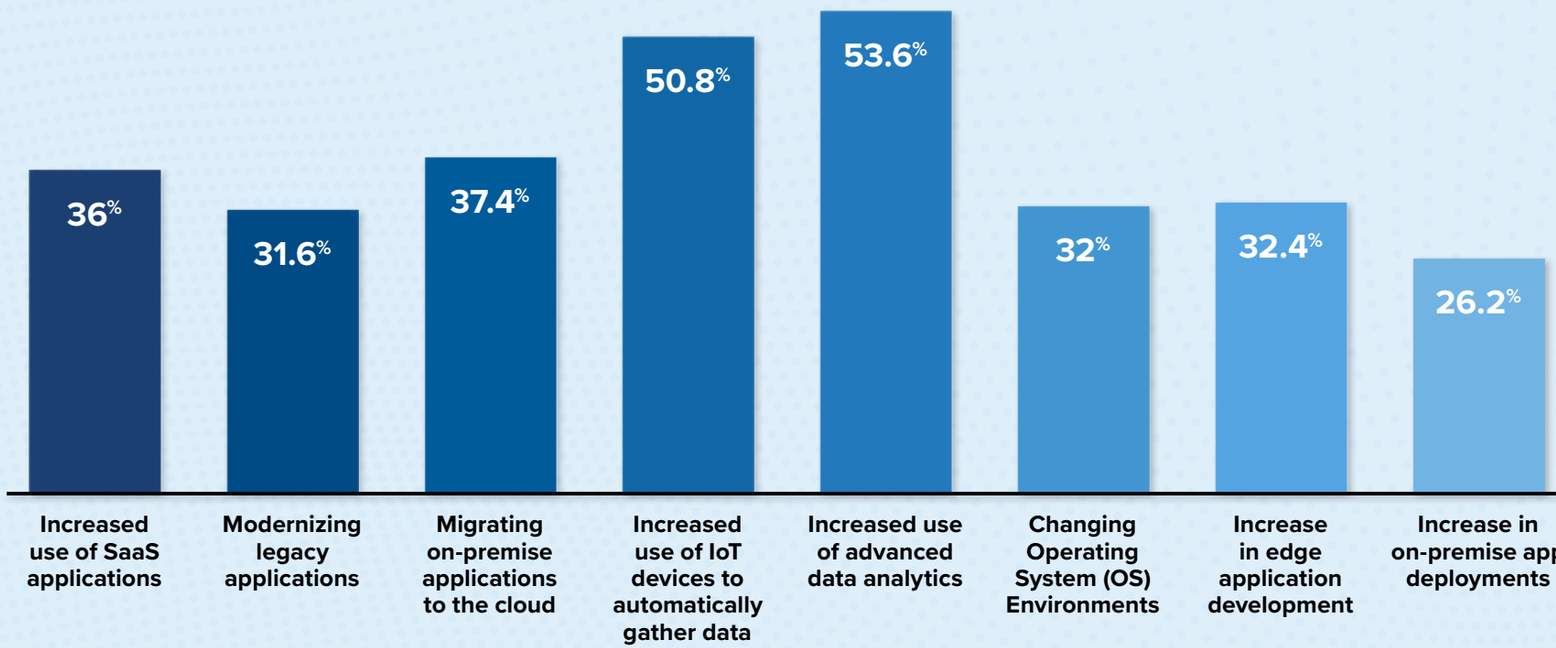
Source: The Seagate Rethink Data Survey, IDC, 2020

REGIONAL INSIGHTS:

Asia Pacific and Japan

The region of Asia Pacific and Japan (APJ) sees the increase of data growth in the next two years from the use of advanced analytics and use of IoT devices to automatically gather data.





APJ organizations are **least daunted by the challenges to managing data** that they see in the coming couple of years, compared to other regions.

Source: The Seagate Rethink Data Survey, IDC, 2020

REGIONAL INSIGHTS:

China

Of all regions, DataOps is most likely to be seen as "very" or "extremely" important in China.

For the purposes of the survey, China is considered a stand-alone region due to its expansiveness, homogeneity, and geopolitical uniqueness.

When asked how important they felt the concept of DataOps was...

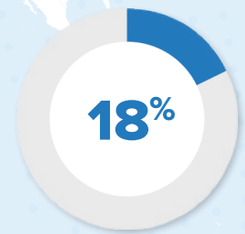
29% of respondents said, "extremely important" and 52% said, "very important"—a total of 81%.

Source: The Seagate Rethink Data Survey, IDC, 2020

REGIONAL INSIGHTS:

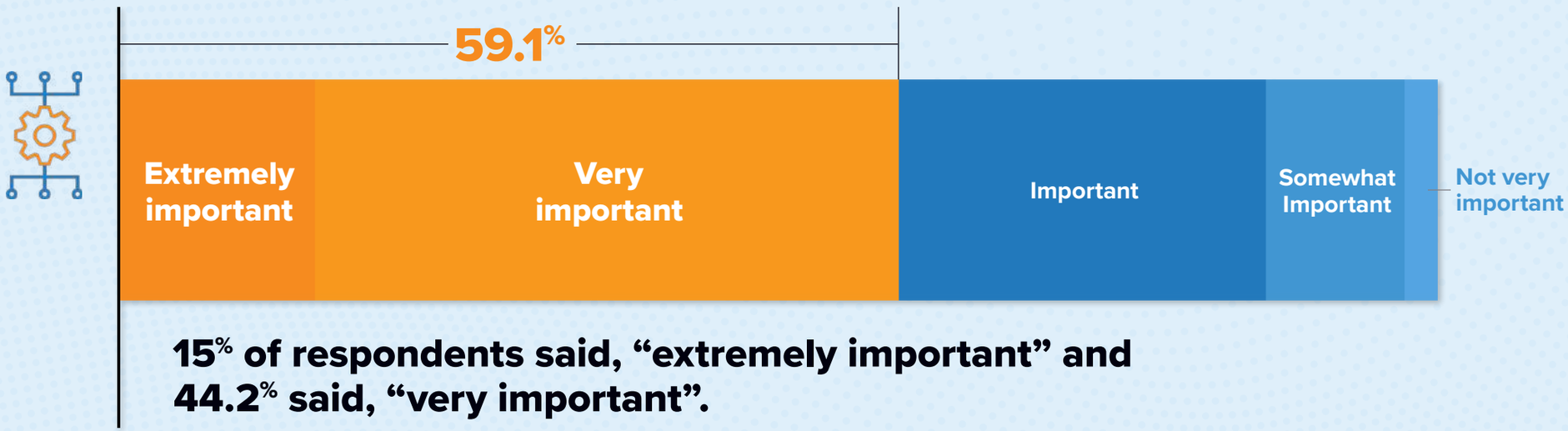
Europe

The Europe region tends to respond conservatively versus other regions in nearly all global surveys across a variety of subjects. Europe has the least implemented DataOps discipline of all regions.



of Europe's respondents report that its DataOps capacity has been fully or partially implemented.

The survey queried enterprises from four European countries: the United Kingdom, France, Germany, and Russia. When asked how important they felt the concept of DataOps was...



15% of respondents said, "extremely important" and 44.2% said, "very important".

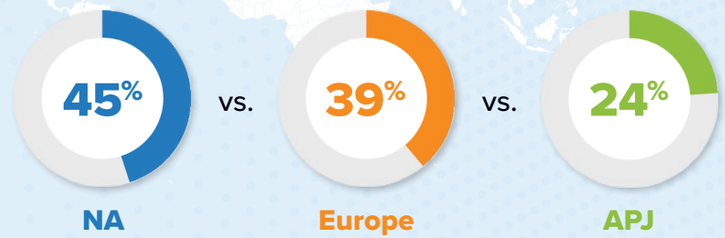
Source: The Seagate Rethink Data Survey, IDC, 2020

REGIONAL INSIGHTS:

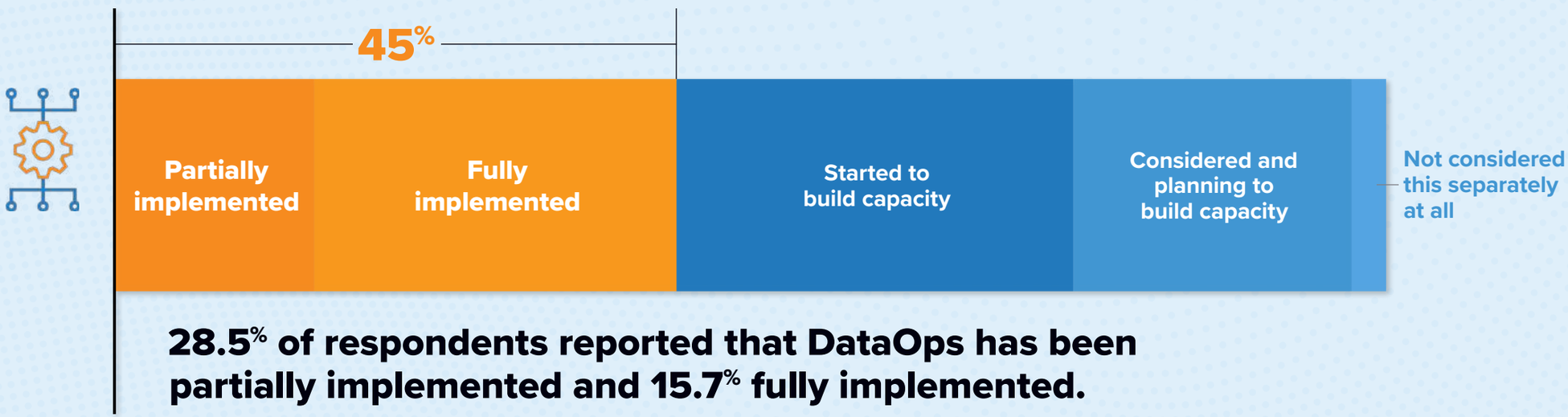
North America

The North America (NA) region, which includes the U.S. and Canada, is leading other regions when it comes to the integration of data management functions.

Percentage of organizations that reported having **a single, enterprise-wide data policy application:**



When asked to what degree has your organization implemented the concept of Data Ops as a separate discipline...



28.5% of respondents reported that DataOps has been partially implemented and 15.7% fully implemented.

Source: The Seagate Rethink Data Survey, IDC, 2020

About the Analysts

Phillip Goodwin
Research Director, Enterprise Infrastructure, IDC

Phillip Goodwin provides detailed insight and analysis on evolving industry trends, vendor performance, and the impact of new technology adoption. He is responsible for producing and delivering timely, in-depth market research with a specific focus on cloud-based and on-premises Data Protection, Business Continuity and Disaster Recovery, and Data Availability. Phillip takes a holistic view of these markets, and covers risk analysis, service level requirements and cost/benefit calculations in his research.

More about Phillip Goodwin

Robert Burbach
Research Manager, Survey & Analysis, IDC

Rob Burbach works on and has responsibility for IDC internal research in the enterprise, small business and consumer markets. In addition, he is also responsible for the design, analysis and management of syndicated and custom research projects for the IDC Custom Solutions group in Canada.

More about Robert Burbach

Andrew Smith
Research Manager, Cloud Infrastructure Services, IDC

Andrew Smith's research focuses on public cloud infrastructure-as-a-service platforms and solutions, with specific focus on storage services. Andrew contributes to market sizing and forecast efforts across IDC's Public Cloud IaaS segments, as well as adjacent markets like multi-cloud data management, data protection as a service, and public cloud cold storage.

More about Andrew Smith

John Rydning
Research Vice President, Global Datasphere, IDC

John Rydning is responsible for the Global DataSphere forecast, which measures the amount of data created year and also for the Global StorageSphere forecast, which is a measure of the installed base of storage capacity worldwide, and the amount of data stored in any given year. Additionally, John leads insightful research that explores key trends, use cases, technologies, and other factors shaping both the Global DataSphere and StorageSphere.

More about John Rydning

Message from the Sponsor

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