

STORAGE DEVELOPER CONFERENCE



*BY Developers FOR Developers*

A decorative graphic on the left side of the slide, consisting of a grid of colored dots in shades of purple, teal, and yellow, arranged in a pattern that tapers to the right.

# Data Management In The Hybrid Multi-cloud Era

**Rakesh Jain**

**STSM & Researcher, IBM**

**SODA TOC Co-Chair**

Ajaneya Reddy, Intel Corporation

Yuji Yazawa, Toyota Motor Co.



## The Open Source, Vendor Neutral Forum For Data And Storage Management



### Open Source

Projects focused on data and storage management in hybrid multicloud environment



### Open Community

All are welcome to join and contribute.  
Build partnerships on a vendor neutral platform



### Open Collaboration

Developers, vendors and end users collaborate on POC solution testing

# A GLOBAL OPEN SOURCE COLLABORATION

## Premier Members



## General Members



## Associate Members



## Supporters

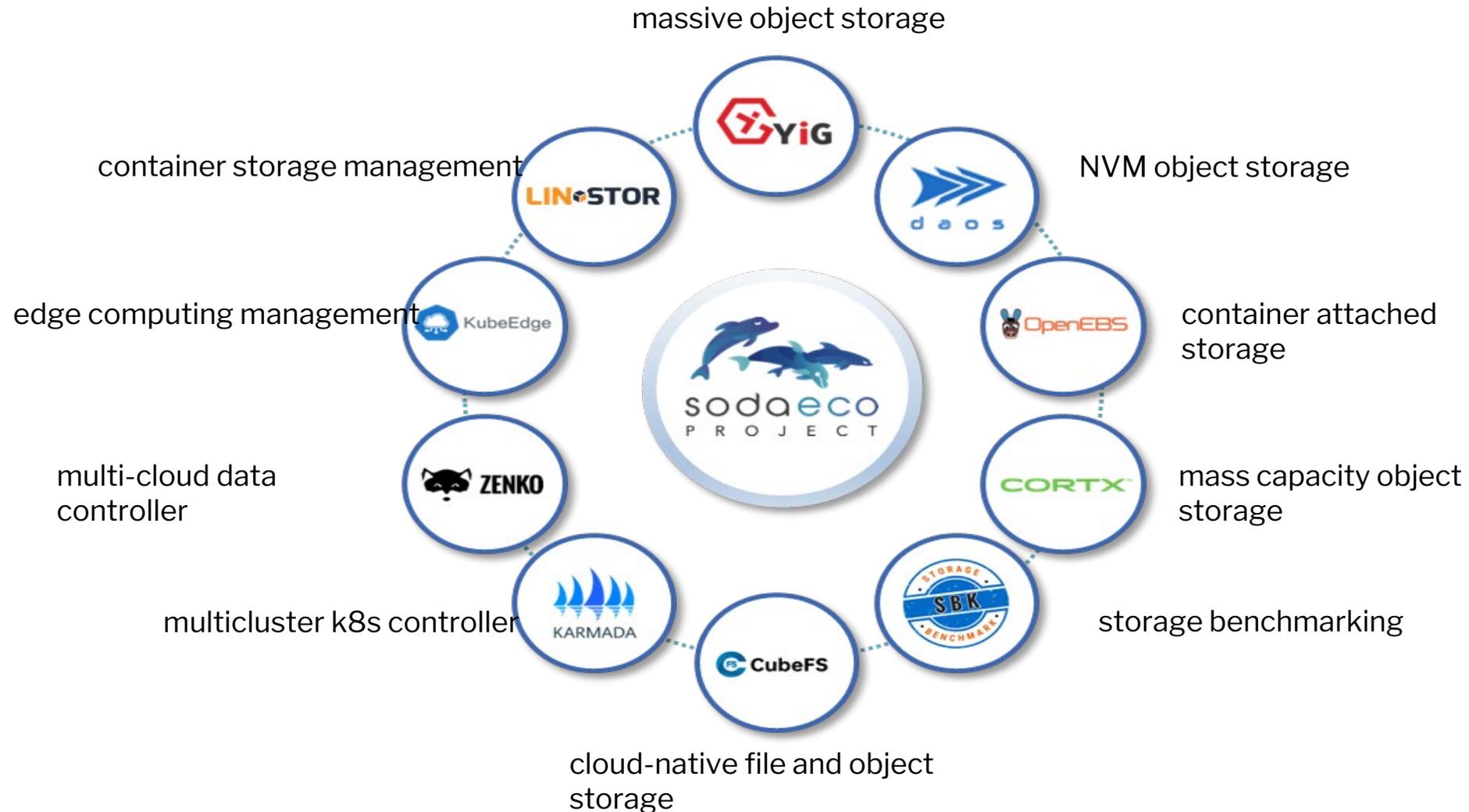


## Alliance Partner



## 2. SODA ECO Projects :

### *Building Collaborative Solutions for end to end Data & Storage*



# Technology Trends and Research: SODA Data & Storage Surveys



<p>In 2022, the growth in data was 3 times higher than in 2021.</p>	<p>56% of end users deploy open source <b>multi-cloud management</b> in their production environments.</p>	<p>43% of end users demand the freedom to leverage multiple storage vendors.</p>
<p>Data security is the greatest challenge facing container deployments.</p>	<p>Public clouds run more than 40% of end-user organization workloads.</p>	<p>Primary data storage, complete data protection, and disaster recovery represent the top 3 use cases for cloud storage services.</p>
<p>Information security and data privacy are the leading reasons to use a private cloud solution.</p>	<p>The biggest challenge facing multi-cloud solutions is the security and protection of data.</p>	<p>Cloud technologies represent the most significant area of data and storage technology investment over the next three years.</p>
<p>AI-driven hybrid data management is considered the most critical area for data management and analytics over the next 2-4 years.</p>	<p>Data quality, governance, and security are top priorities when selecting metadata management solutions.</p>	<p>Cloud storage monitoring is the greatest challenge facing data and storage observability.</p>

<p>24% of end users run database workloads all the time.</p>	<p>61% of end users rate DPA as the most important capability over the next three years.</p>	<p>45% of end users identified storage capacity as their #1 storage infrastructure challenge.</p>
<p>55% of total mentions identifying public cloud services as the foundation for application development and deployment.</p>	<p>10-100x the increased amount of annual data growth by the top 5% of end users compared to the majority of their own since prior.</p>	<p>60% the number of end users that identify Software Defined Storage as a key technology used in their storage infrastructure.</p>
<p>Cloud application storage is the #1 use case for cloud storage.</p>	<p>Backup and recovery is the #2 cloud storage use case reported by 88% of end users.</p>	<p>Performance is the #1 cloud native storage pain point as reported by 49% of end users.</p>

Research Collaboration and Surveys for Data & Storage Technology Direction

## SODA DATA MANAGEMENT



### KAHU

Backup, recover and migrate K8s clusters data anywhere with no vendor lock-in

PROTECT



### STRATO

Move data across multicloud environment with a common S3 compatible interface

MOVE



### DELFIN

Observe, monitor and manage alerts for any storage anywhere

OBSERVE



### CRYSTAL

Unified metadata for unstructured data across on-premise and cloud storage

DISCOVER

# Crystal

## CRYSTAL Metadata Project

### Unified API

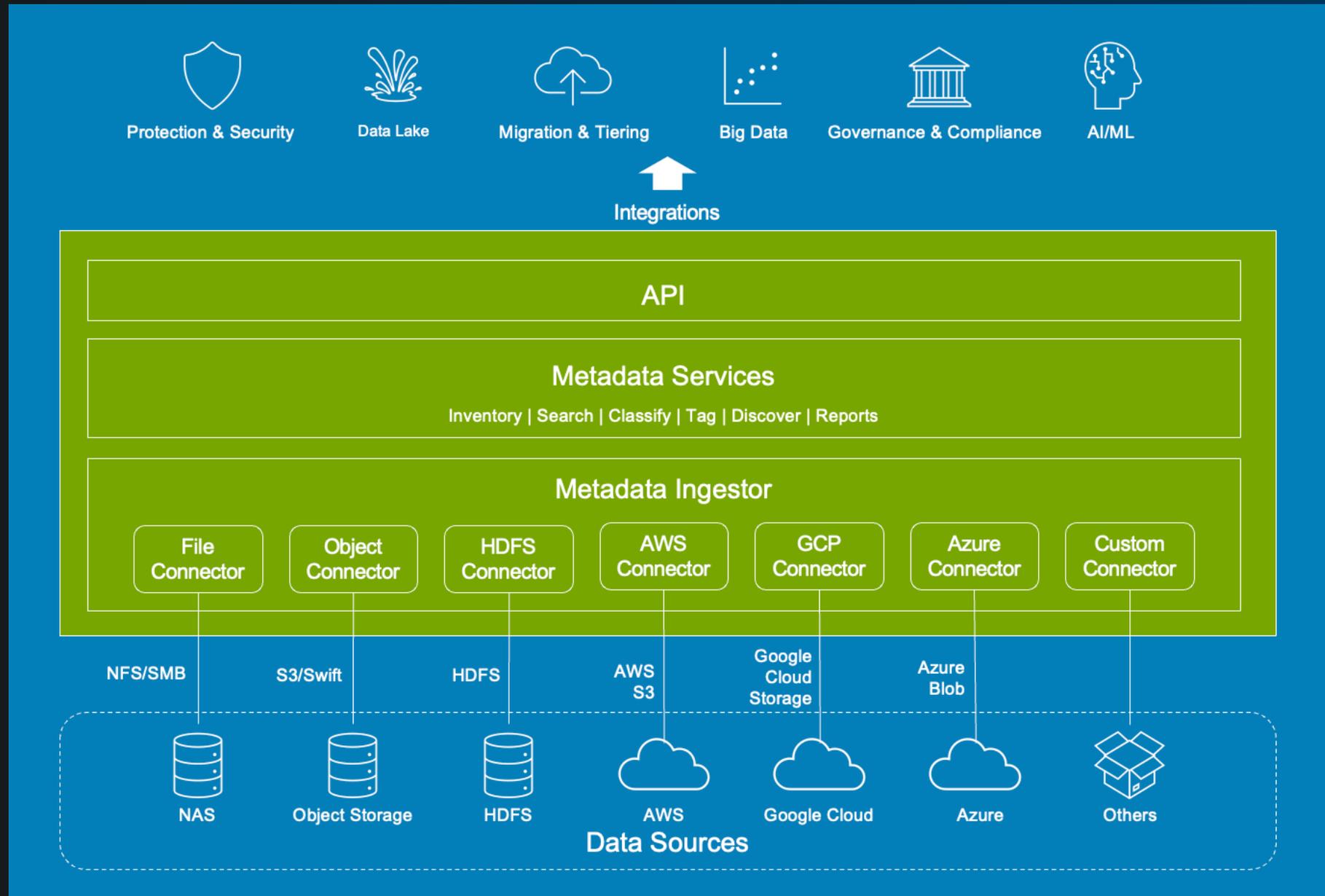
Unify integrations across applications with full control and a consistent experience

### Unified Services

Search, classify, tag and get unified deep insights into data across the entire IT environment

### Unified Metadata

Ingest and unify metadata for all unstructured data (files/objects) in on-premise and cloud storage



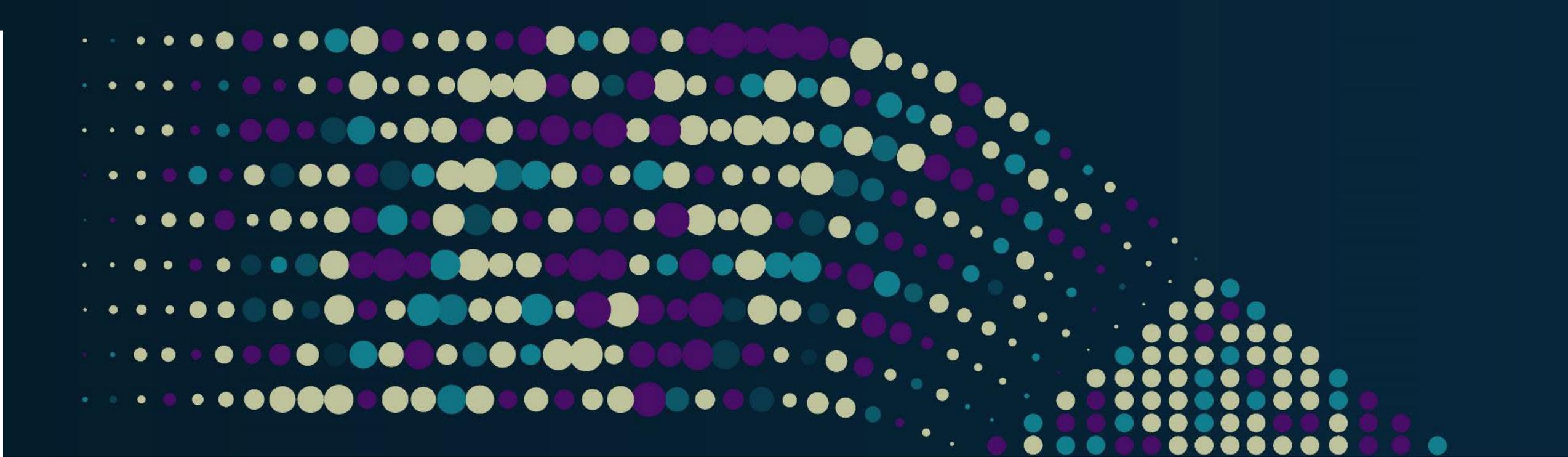
# Multi-cloud Data Replication for Kubernetes

Backup Kubernetes volumes from one cluster/cloud to another









# Section Title

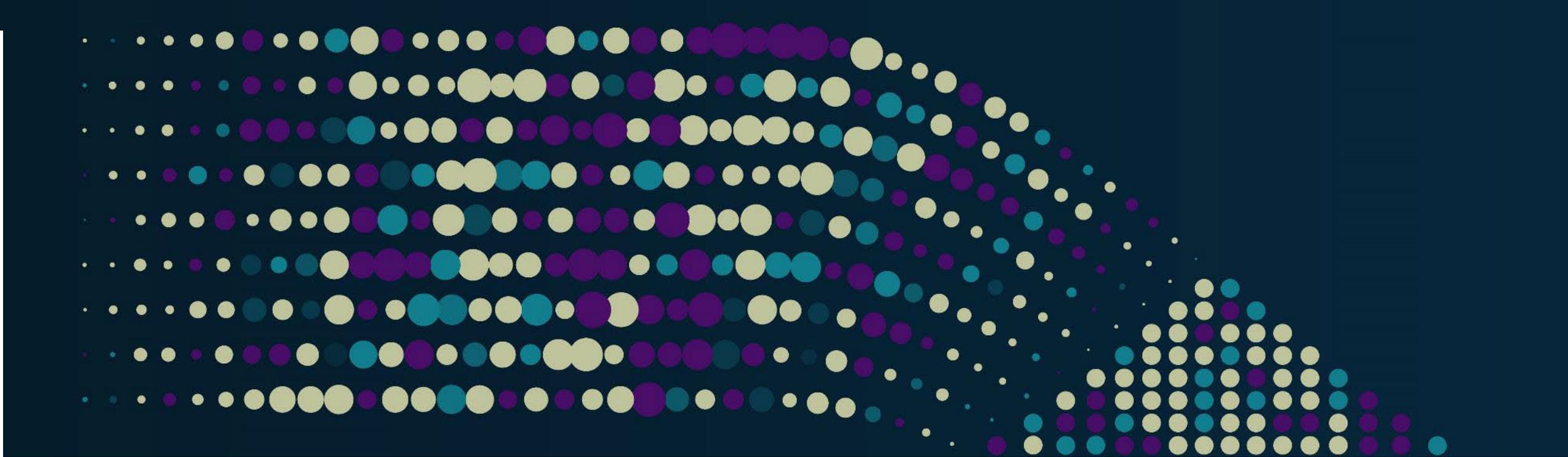
Section Subtitle

# Light Slide Title

- Bullets 1
  - Bullets 2
    - Bullets 3
      - Bullets 4
        - Bullets 5

# Dark Slide Title

- Bullets 1
  - Bullets 2
    - Bullets 3
      - Bullets 4
        - Bullets 5



Please take a moment to rate this session.

Your feedback is important to us.