



Transforming systems through a lens of sustainability

Moderator

Charlie Ishikawa, President and Principal, Kahuina Consulting

Presenters

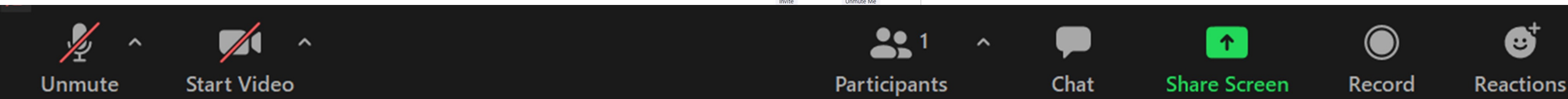
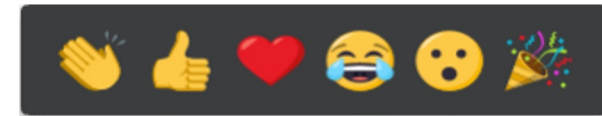
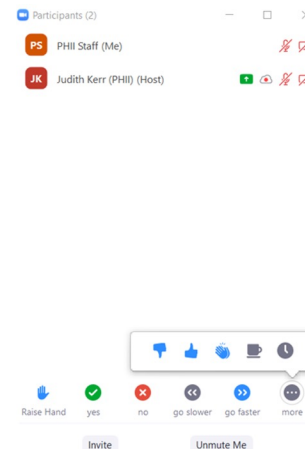
Jeff Brown, Innovate Ohio Program Manager, Ohio Department of Administrative Services

Andrew Wiesenthal, Principal, TELHI Consulting

Better data. Better decisions. Better health.

Finding your way around Zoom

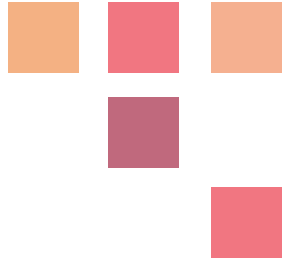
- The audience is muted, type your questions into the chat or use reactions to communicate with panelists.

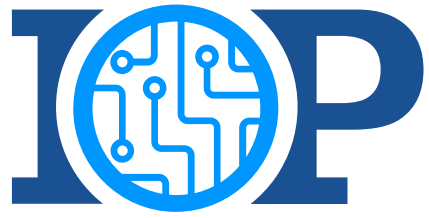


Next Speaker

Jeff Brown

Innovate Ohio
Program Manager,
Ohio Department of
Administrative
Services





Innovate
Ohio
Platform

InnovateOhio Platform Data Analytics Program

A Program for Data Sharing and Analytics

May 2022



Introduction & Background

Executive Order 2019-15D

"They've got a more user friendly way to deal with the government, but second, we'll be better able to serve them by **sharing data and solving problems**"

Governor Mike DeWine

"We hope that this can serve as the **foundation for giving more Ohioans more digital experiences** where they don't have to physically go to offices, where they have convenience, where we help them navigate state government digitally in a **safe, secure cost efficient way**"

Lt. Governor Jon Husted



Ohio Revised Code Section 125.32

Enterprise Data Management & Analytics program

Ohio Revised Code Section 125.32

- Department of Administrative Services (DAS) may establish an enterprise data management and analytics program
- Gather, combine and analyze data provided by state agencies
- Measure the outcome of state-funded programs and develop policies

Notwithstanding any other provision of the Revised Code

“...a state agency's provision of data under the program is considered a permitted use of the data under the Revised Code and the state agency is not in violation of any contrary provision of the Revised Code by providing the data.” - **O.R.C**

125.32

- Data is **secured**
- Data is **governed by accountable entities**
- Data is a **shared strategic asset**
- Data is **reuseable**
- Data is **interoperable**

The **InnovateOhio Platform** enables **state agencies** to become more **customer-centric and data-driven**, ultimately making Ohio a better place to live, work, and do business.

User Experience



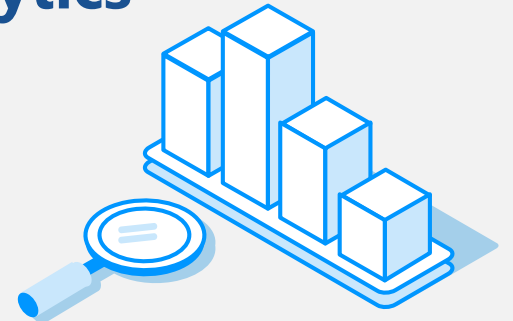
Ensures that state resources and information are accessible to every Ohioan.

Digital Identity



Keeps workforce information secure and private and simplifies interactions with state systems.

Data and Analytics

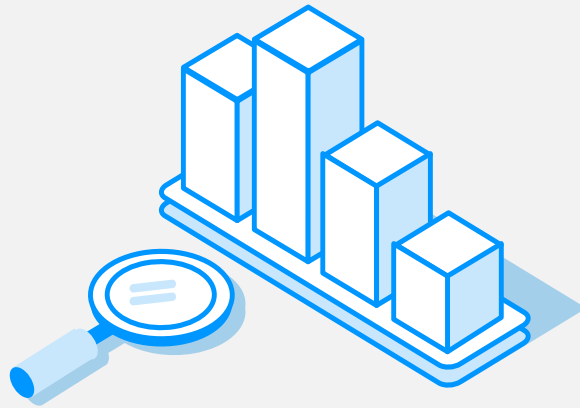


Secure data sharing across the enterprise with advanced analytics application and flexible self-service capabilities.

InnovateOhio Platform

Data & Analytics Pillar

Data and Analytics



Secure data sharing across the enterprise with advanced analytics applications and flexible self-service capabilities

Onboarding and Engagement

Multiple pathways for agencies to onboard the platform and unleash the power of their own data

Advanced Analytics Capabilities

A suite of self-service products and tools for agencies to make their data actionable

Results-Driven

Ability to move from concepts to results through data-driven decision making

Success & Results

IOP Data & Analytics



JFS Unemployment Fraud

Built **fully operational solution**, integrating **machine learning** capabilities to predict potential fraudulent unemployment claims



DataOhio Portal

Built and launched the State's data repository, includes **266+ datasets**, **87 agency programs** and **184,000+ dataset views**



COVID-19

Built and deployed **200+** internal and external dashboards, stood up dedicated ODH data team

Other Agency Use Case Examples

OBM Duplicate Payments

Leveraged advanced technology to identify duplicate payments within the state, discovering over \$1 million to-date

WIC/SNAP/TANF

Enabled a cross-enrollment initiative in social service programs for eligible mothers and children to reduce Ohio's infant mortality rate

Workforce Development

Partnered with MHAS and OWT on separate initiatives to perform workforce development analyses, including identifying workforce trends, determine needs and deploy a critical jobs visualization tool

Growth and Results

Business Results

Developed and deployed 370+ interactive visualizations and dashboards for strategic analysis for agencies across the state

Data Onboarding

668 agency datasets onboarded to-date (88 in FY 2022)

Innovation

Implemented 22 self-service capabilities to enable agency use and adoption of the platform

Data & Analytics Service Offerings

Awareness & Outreach

Self-directed and instructor led training curriculum to learn about data analytics and the Innovate Ohio analytics platform, including what it is and how to use it.

Use Case Development

Facilitate brainstorming sessions to help generate ideas for data-driven use cases that can benefit from leveraging the InnovateOhio ecosystem and turn them into actionable statements of work.

Use Case Support

Support with onboarding data sources onto the analytics platform to support data-driven initiatives that will be leveraging the platform.

Solution Design & Architecture

Facilitate solution design and architecture of data-driven solutions that will be leveraging the platform, leveraging modern industry best practices for data and analytics.

Development Services

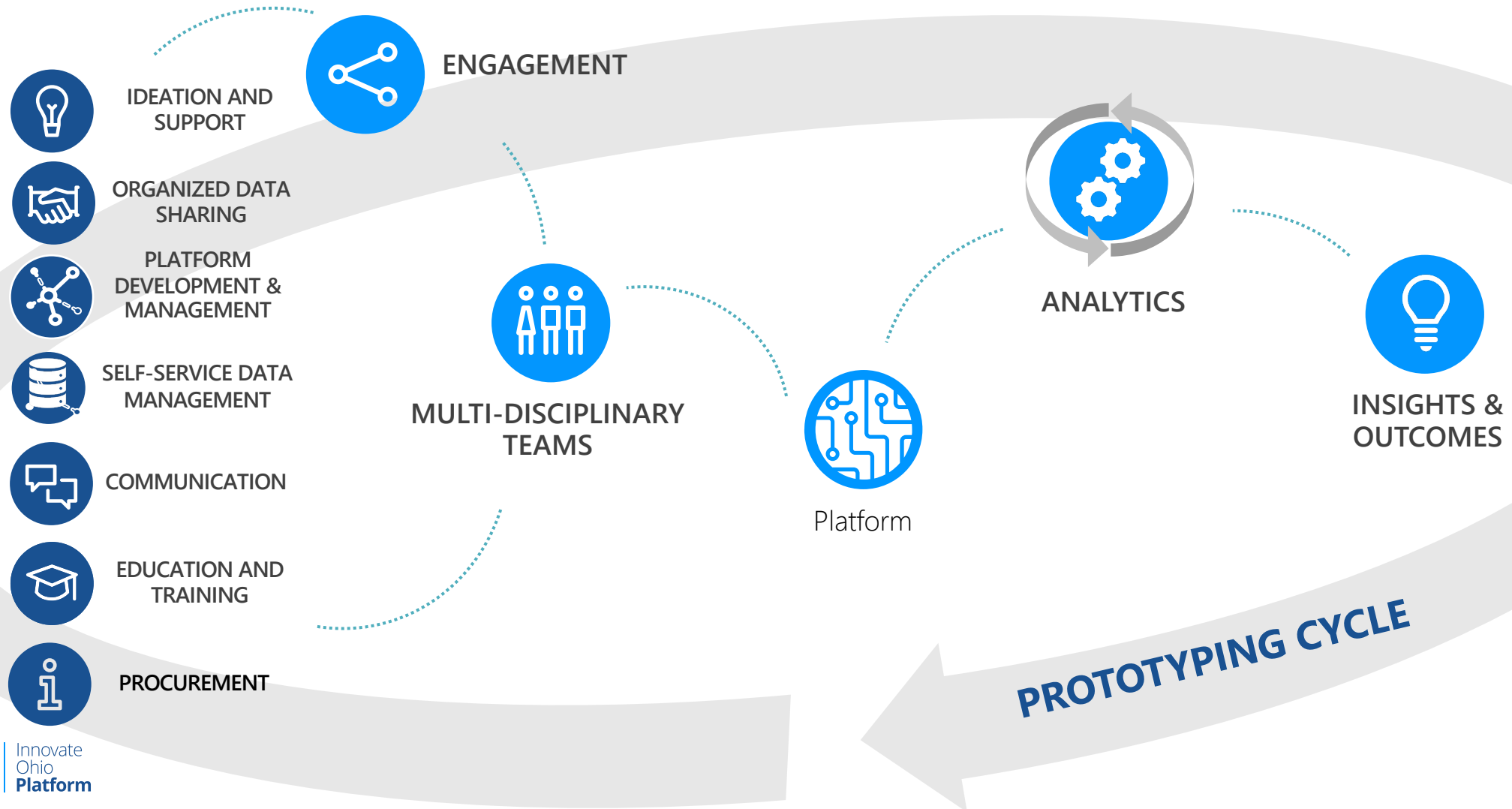
Software development of data-driven initiatives that will be leveraging the InnovateOhio Platform ecosystem..

Training & OCM

Provide overviews and discussions to better understand what data analytics is in general, how it is used in today's business world, best practices, and benefits.

Adopt Modern Methodologies

A Collaborative Approach to Applied Analytics



Platform Capabilities

Data Analytics Product Suite

Products available to state agencies



Provides the ability to build analytical and reporting solutions and deploy them in the most impactful manner possible by putting data in the hands of users in their natural workflow. The applied analytics solution enables you to move from concept to results.



Provides the capability to combine information from a wide array of sources, applications and formats so that it can be analyzed to derive valuable business insights. Furthermore, data ingestion pipelines can be automated and governed, while ensuring secured access to the data.



Provides rich and secure capabilities to harness the power of the analytics platform leveraging user friendly and pre-configured technologies. Additionally, the product supports a bring-your-own-tool approach allowing analysts and data scientists to work on the platform with the technologies they are most comfortable using.

Data & Analytics Services



Capabilities to build analytical and reporting solutions and deploy them in the most impactful manner possible, moving from concept to results.

Query Exploration

Query data on the platform via SQL to conduct ad-hoc analysis and exploration

Visual Analytics

Visually represent insights generated on the analytics platform

Analytical Reporting Outputs

Provides descriptive, operational reporting capabilities for consuming data on the analytics platform

Embedded Analytics

Deploys analytics in the most impactful manner possible by putting data in the hands of users in their natural workflow.

Data Science

Enables general users or data science experts to conduct data science exploration, prototyping, machine learning and artificial intelligence

alteryx

HUE

+ a b l e a u

python™



Capabilities to combine information from a wide array of sources, applications and formats so that it can be analyzed to derive valuable business insights

Data Ingestion

Quickly on-board data from diverse sources to begin leveraging the benefits of the of the analytics platform

Real-time Streaming

Move data in real-time from source to destination in order to provide faster insights for decision-making

Data Gateways

Provides data gateways to better manage custom interfaces and client application requests to the platform

Workload Automation

Schedule data workloads on the platform to continually refresh data and insights





Data Management

Capabilities to harness the power of the analytics platform leveraging user friendly technologies. A bring-your-own-tool approach allows users to work on the platform with the technologies they are most comfortable using

Data Prep & Profile

Connect to the platform and quickly profile, analyze and cleanse data for downstream analysis with minimal coding required

Entity Resolution

Links data sets with no common join keys using fuzzy matching logic to get a more complete view of entities across the state

Audit

Audits data and track who is accessing your data on the platform, what they accessed and when

De-identification

De-identify sensitive data on the platform, while still making the data usable for analysis and link it to other data sets

Code Management

Collaborate share, review and manage code more efficiently for data analytics initiatives

Data Transformation

Wrangle and transform the data in a variety of different ways and get it modelled into a specific format for downstream analysis

Data Lineage

Tracks the flow of data on the platform, both upstream and downstream

Data Catalog

Tag data, search for data and collaborate with other users to make data sharing more efficient and pervasive

Data Sharing

Processes for agencies to efficiently own their data, manage access, and share data across the state

Bring Your Own Tool

Supports a wide variety of tools for data and analytics to meet different agency needs, and integrates with a consistent approach to data engineering services

Data Portability

Perform on-prem private cloud and can provide public cloud services in a consistent manner to provide elasticity for modern data workloads

Data Warehousing

Processes for optimizing or re-platforming data warehouse solutions

Relational Search

Provides the ability to search data through natural language processing (text search or voice search), rather than SQL or programming

alteryx



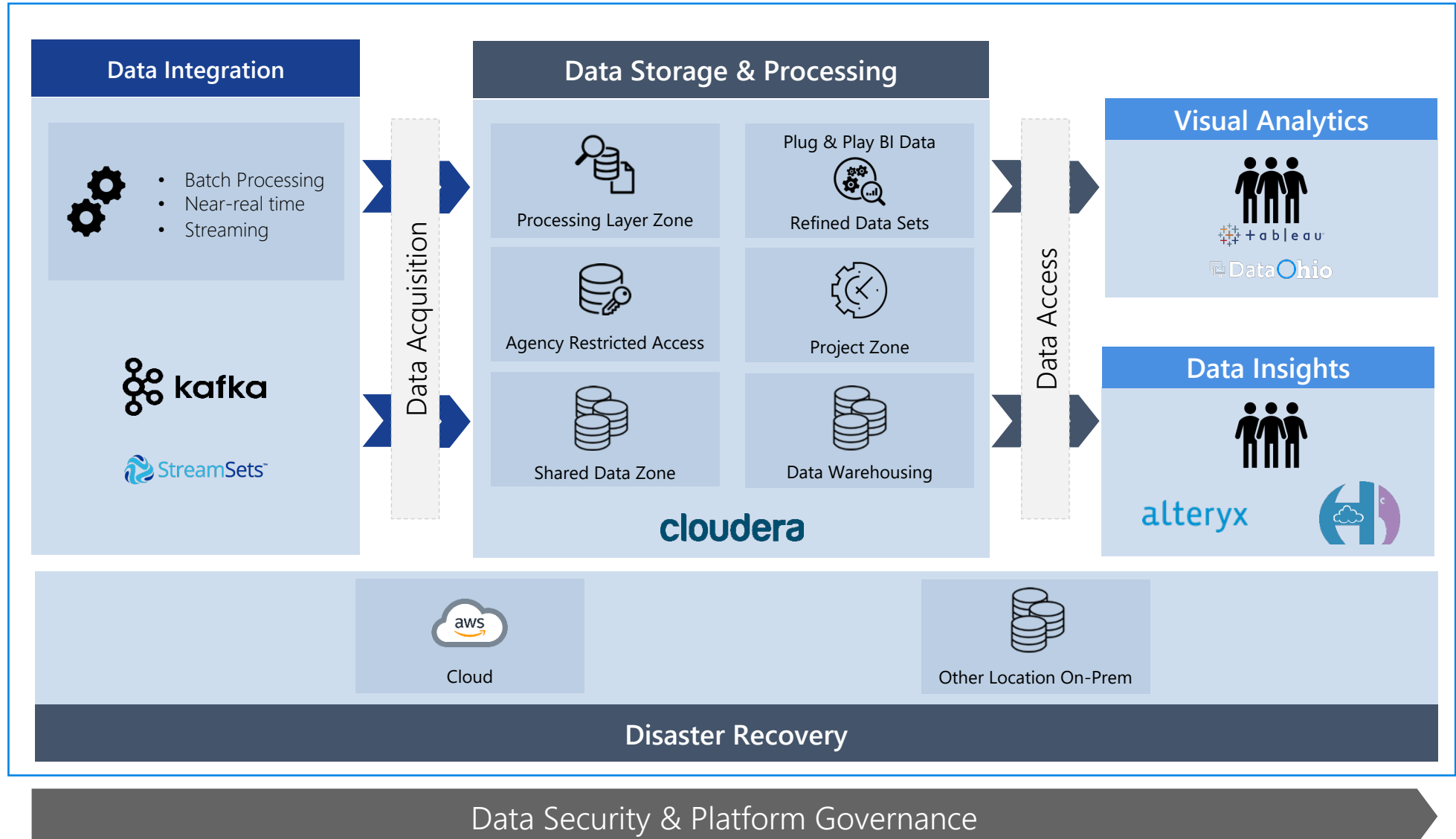
python™

cloudera®



The InnovateOhio Platform Ecosystem

Making leading analytical tools available to different types of business users and data science experts



Our Plan to Extend Innovation

Innovation	Drive Adoption	Operational Efficiency & Continuous Improvement	Organization
Offering the most modern platforms, tools, capabilities and service offerings for our partners	Driving enterprise-wide use of the data & analytics platform, its tools and capabilities	Providing best-in-class security and governance standards by enhancing internal processes	Building upon the IOP organization to lead and support the State's Data Analytic efforts
18 Total Initiatives	19 Total Initiatives	16 Total Initiatives	12 Total Initiatives

Engagement & Governance

Data & Analytics Engagement Models



Proactive Use Case Development

IOP team identifies ideas or opportunities based on developed models and approaches key stakeholders to engage in a project

Analytical Use Case Development

Engagement pathway to partner with the IOP team to accelerate an idea to an actionable and outcome-based use case

Data Onboarding

Engagement pathway to partner with IOP team to onboard data or enable agencies to perform self-service data onboarding and initiatives

DataOhio Portal

Agencies interested in not only onboarding data onto the InnovateOhio Platform, but also the public-facing DataOhio Portal

DataOhio Portal



View
All Data

About
DataOhio

DataOhio
Projects

Get
Help

CONTACT SEARCH LOGIN

**10 agencies
w/ datasets**

**87 agency
programs**

**260+
datasets
available**

**180,000+
dataset
views**

OHIO DATA, READY TO EXPLORE. ⓘ

e.g. Department of Health, Coronavirus, Education, etc.

 Find Data

The DataOhio Portal offers a secure, efficient way to share data and create transparency for all Ohioans

Dataset Types and Defined Access

The DataOhio Portal displays public, secured, and protected datasets and access is defined by user role

Public Datasets

- Data Catalog datasets visible to everyone
- Dataset details visible to everyone
- Data available to everyone (No approval necessary)

Secured Datasets

- Data Catalog datasets visible to everyone
- Dataset details accessible to Authenticated users (OH|ID)
- Data available upon approval by agency data owner

Protected Datasets

- Data Catalog datasets and dataset details are visible to authenticated users when added to permissions group
- Data available upon approval by agency data owner

Data Sharing Foundation

Data sharing at the State

Platform Design

Built considering HIPAA, FERPA, PHI, 1075, CJIS, and PCI requirements and regulations

Privacy

Continuous partnership with privacy office and legal counsel to establish standard processes for data-sharing agreements

Security

- Partnered with state CISO to leverage agency security and IT / CIO representation to develop comprehensive security plan

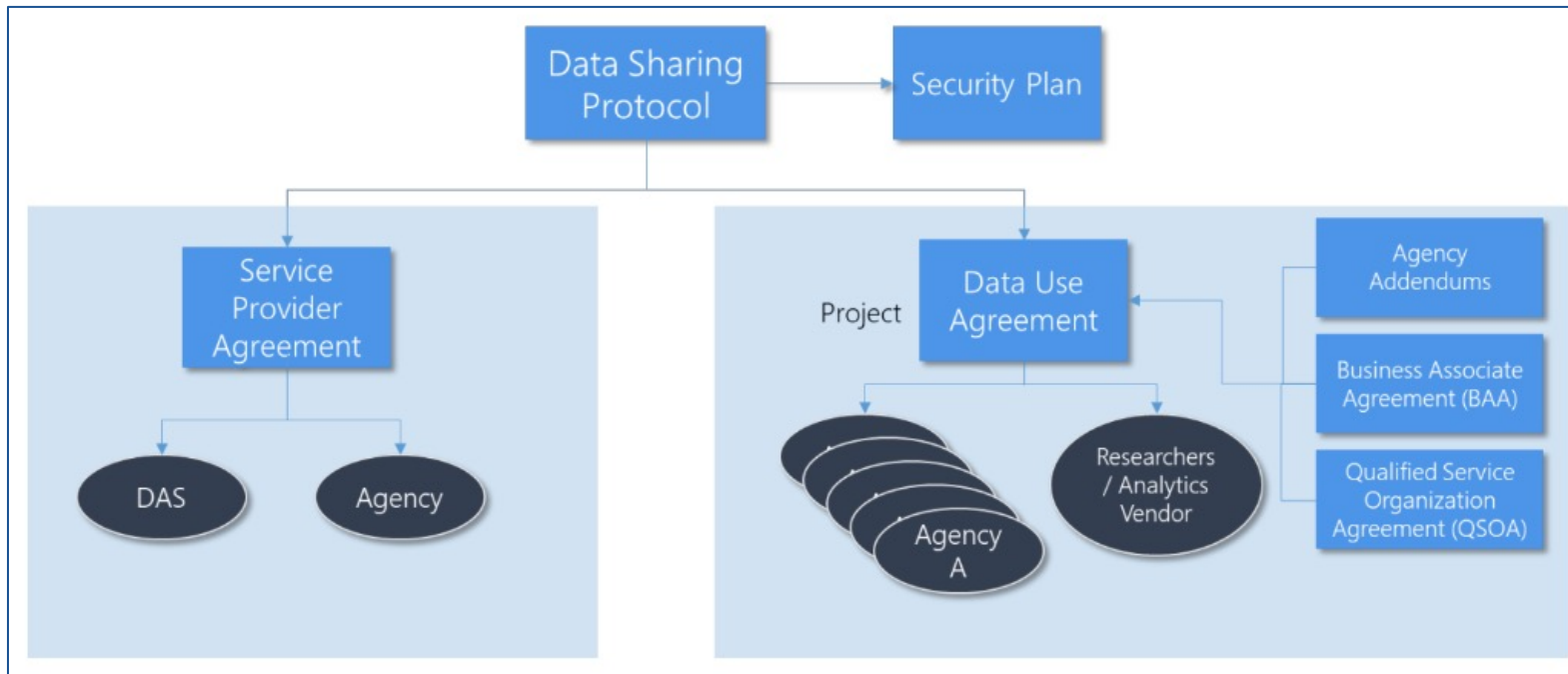
Data Ownership

Provide clarity, process and responsibilities for data ownership to remain with agency sources



Data Sharing Protocol

- This protocol outlines procedures and responsibilities of DAS and agencies for use of the InnovateOhio Platform to securely onboard data and facilitate secured data sharing under authority of ORC 125.32 and Executive Order 2019-15D



Data Use Agreement & Addenda

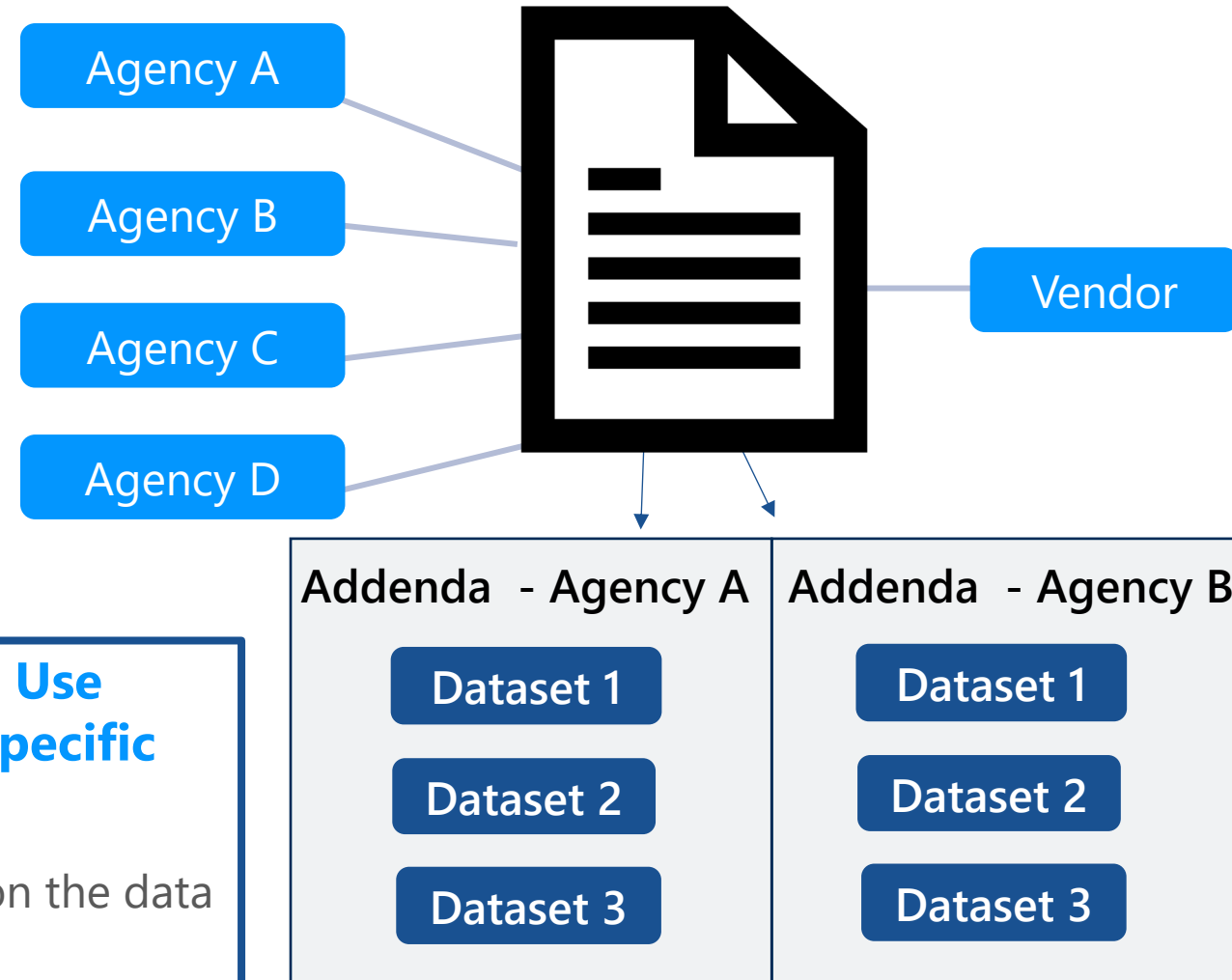
A Data Use Agreement contains all general provisions:

- Includes most common provisions
- Usually, a specified purpose and time duration
- Agency to agency or agency to 3rd party
- Accompanies a data project because it's using data

Addenda to the general Data Use Agreement (DUA) are **dataset-specific** beyond general provisions

- Provisions of the addendum depend on the data (HIPAA, IRS 1075, CJIS, 42 CFR)

Data Use Agreement



Organizational Change Management Key Principles



Start Early

Engage OCM at the outset of projects to conduct a high-level assessment of the scope of change, who is impacted and what supports are needed.



Set Goals at the Beginning

Work with OCM to establish goals and metrics at the start of each project that drive end-user adoption.

While having measurable targets is good, the larger vision is to add value - helping agencies use data to shape policy and program delivery.



Think Beyond Communications

OCM is more than just communications – it involves sponsorship, coaching, training, readiness, and resistance management depending on the unique needs of the project.

Looking Forward & Conclusion

Key Takeaways:

- IOP Data Analytics program was founded by Executive Order 2019-15D
- IOP Data Analytics focuses on offering innovative data tools, keeping pace with technological trends and needs
- IOP Data Analytics engages state agencies in a variety of high-impact projects (often referred to as use cases)
- The Data Analytics program has completed a variety of use cases with agencies to achieve data-driven insight and inform true change
- There are mature processes in place for contracting and legal agreements
- Security is a key feature of the Data and Analytics Platform

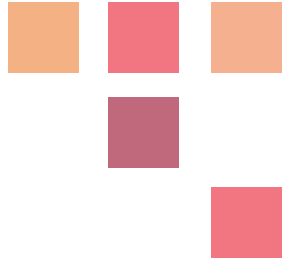
Challenge:

**Focus on how we can do this
instead of why we can't do
this.**

Next Speaker

**Dr. Andy
Wiesenthal**

Principal, TELHI
Consulting



A Vision for Public Health Data

Barriers and Suggestions

Andy Wiesenthal, MD, SM, Colorado Permanente Medical Group and Deloitte Consulting (retired from both—eat your hearts out)

The Future Could be Here Now

... and it is definitely not uniformly distributed

- Data flows from the delivery system (and all other sources) flows automatically into public health visualization and analytic tools
- Manual effort on the sending and receiving ends is minimized and generally unnecessary
- Decision rules operate on the data on the public health end, alerting epidemiologists to infrequent occurrences and trends in more common conditions of interest
- Data exchange between jurisdictions and jurisdictional levels is automated
- Data of interest to delivery systems and individual practitioners is automatically delivered to them in the appropriate workflow context
- Joy abounds

Why Has the Future Eluded Us

Extrinsic and Intrinsic Barriers

- Extrinsic Barriers
 - Funding—measly and episodic
 - Powerful stakeholders have not been at the table
 - Delivery system leadership
 - EHR executives
 - Payers, both private and governmental
- Intrinsic Barriers
 - >3,000 independent jurisdictions
 - Get it perfect before committing to anything—you may never see the money again
 - Voluntary data transmission between hierarchical levels
 - Preference for niche solutions rather than common platforms

Where to From Here?

Skate to where the puck is going to be

- Standardize
 - Platform
 - Rules
 - Methods/Workflows
- Governance
 - Maintain standardization
 - Remember the Second Law of Thermodynamics
 - Bring the delivery system and the EHR vendors to the table and don't crowd them out—not every public health association and constituency has to be specifically represented
- Move quickly

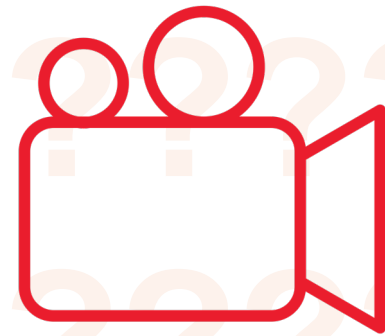
Questions and answer



Post in the chat

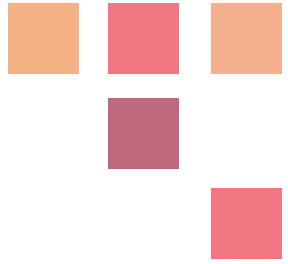


Raise your hand

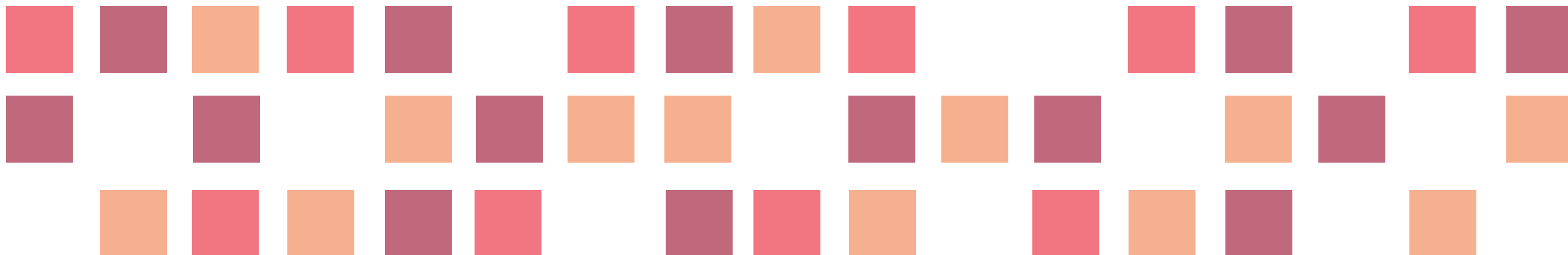


Turn on your video

Next Steps



- Post additional questions on Circle - link provided in the chat
- Stay here for Common grounds networking break 2:15– 2:30 PM ET
- Next session 2:30 – 3:30 PM ET
 - *Campfire sessions*



Thank you.

