NSH
Health Analytics Platform and Analytics Roadmap Update

From ‘loudest voice’
to ‘smartest choice’

Please be advised that we are currently in a controlled vendor environment for the

One Person One Record project.

Please refrain from questions or discussion related to the

One Person One Record project.

Informatics…

“Utilizes health information and health care technology to enable patients to receive best treatment and best outcome possible.”

Clinical Informatics…

"is the application of informatics and information technology to deliver health care."

AMIA. (2017, January 13). Retrieved from https://www.amia.org/applications-infomatics/clinical-informatics

Analytics…

“is the discovery, interpretation, and communication of meaningful patterns in data.”

“relies on the simultaneous application of analysis, statistics, computer programming and operations research to quantify performance.”

Objectives

At the conclusion of this activity, participants will be able to…

- Identify what knowledge and skills health care providers will need to use information now and in the future.
- Prepare health care providers by introducing them to concepts and local experiences in Informatics.
- Acquire knowledge to remain current with new trends, terminology, studies, data and breaking news.
- Cooperate with a network of colleagues establishing connections and leaders that will provide assistance and advice for business issues, as well as for best-practice and knowledge sharing.

Conflict of Interest Declaration

- I do not have an affiliation (financial or otherwise) with a pharmaceutical, medical device, health care informatics organization, or other for-profit funder of this program.

Session Objectives

The specific objectives of this session are to provide and update on the progress of the NS Health Analytics Roadmap and the implementation of the NS Health Analytics Visualization Platform

01 Analytics Roadmap Primer

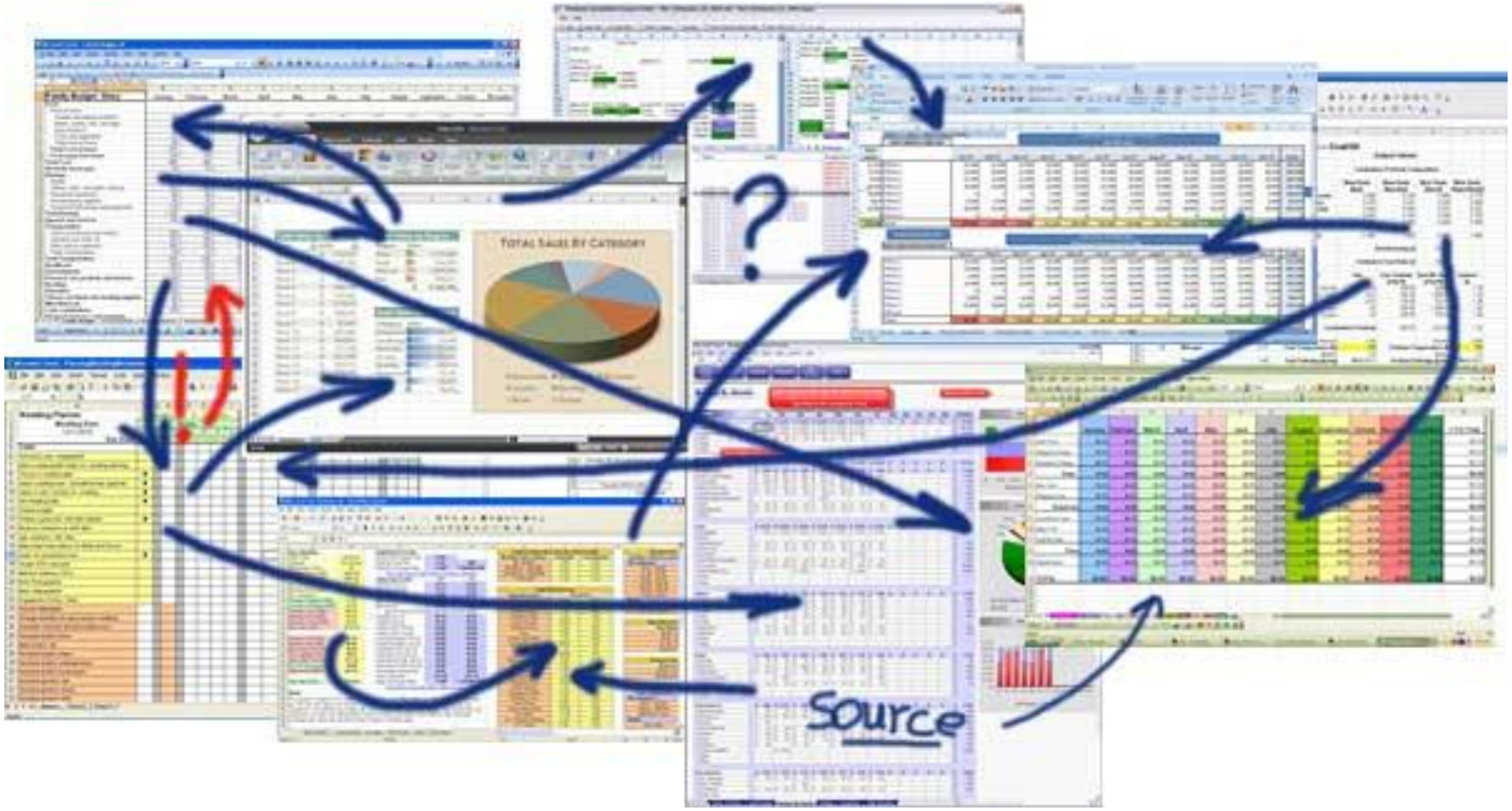
02 Journey of the platform from Pilot to Production

03 Content Governance

04 What's next?

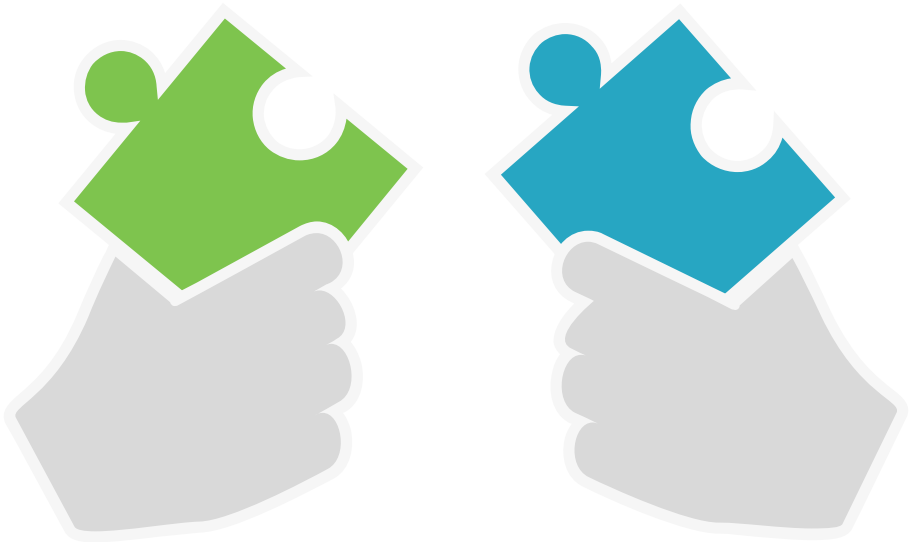
What Data Do You Need

and, Do You Need All That Data?



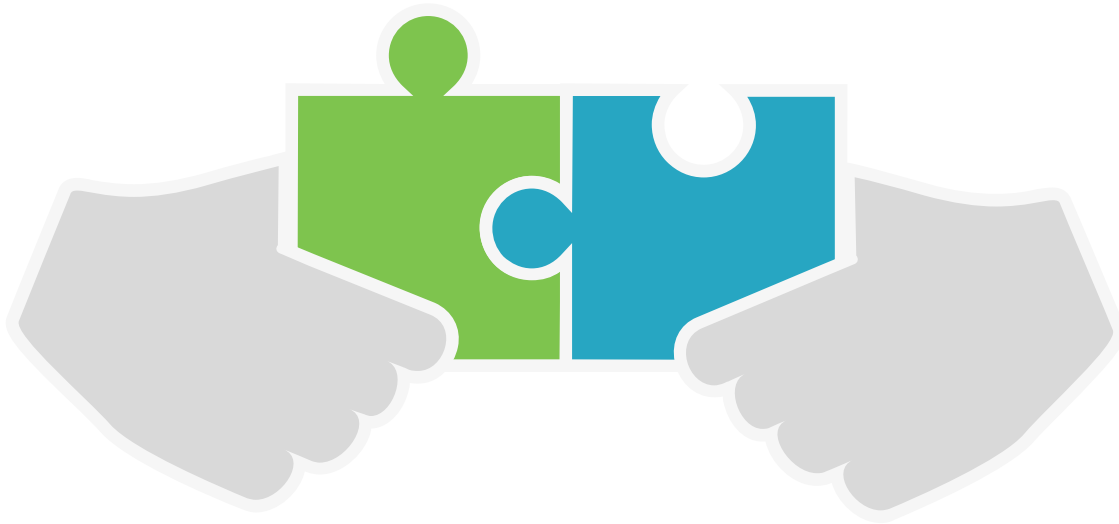
Objective of Analytics

From Data to Insight



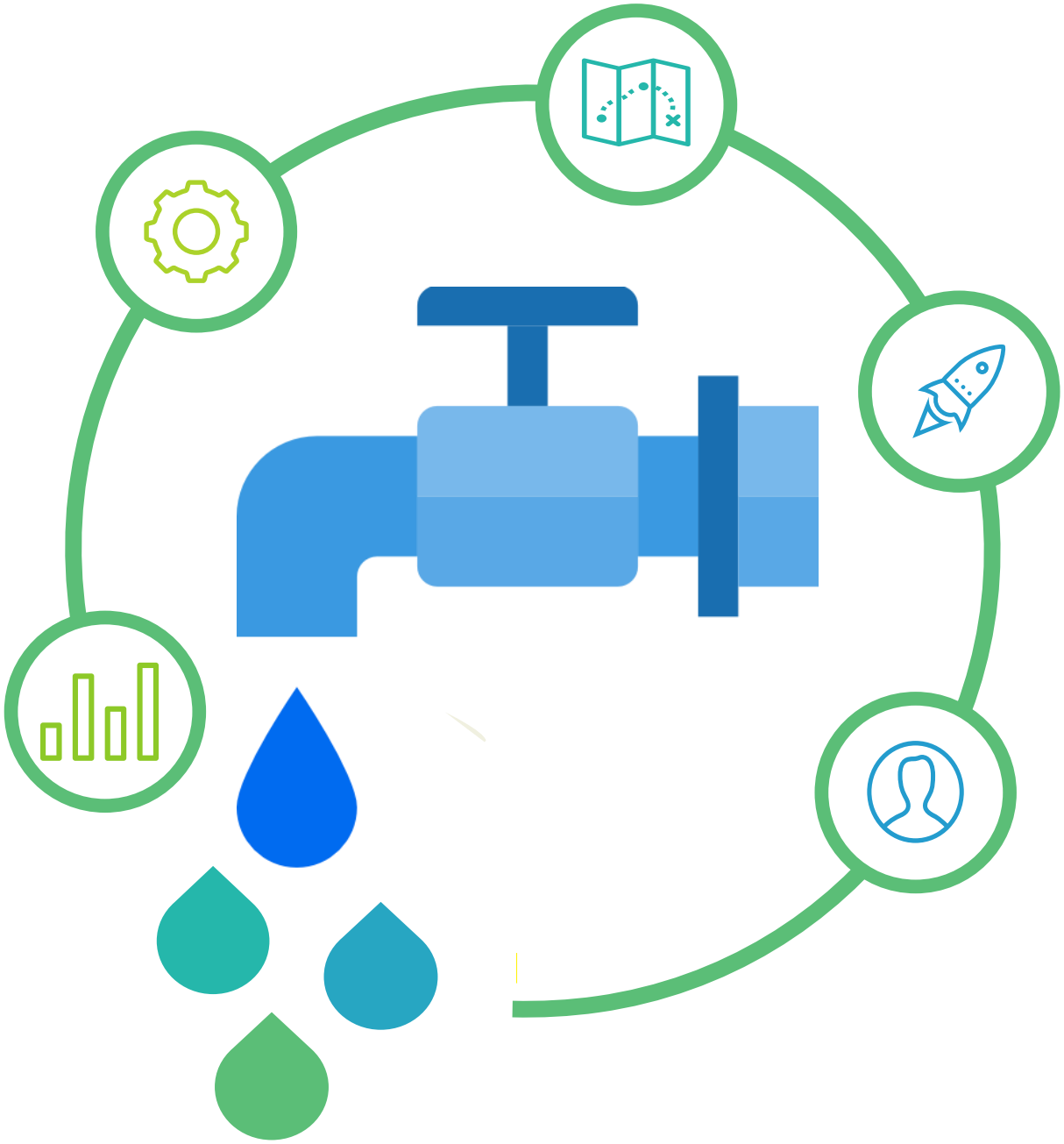
Data

Data in different forms and formats held in disparate system across NSH clinical and corporate domains



Insight

Data joined together to create metrics and insights for ongoing monitoring and improvement



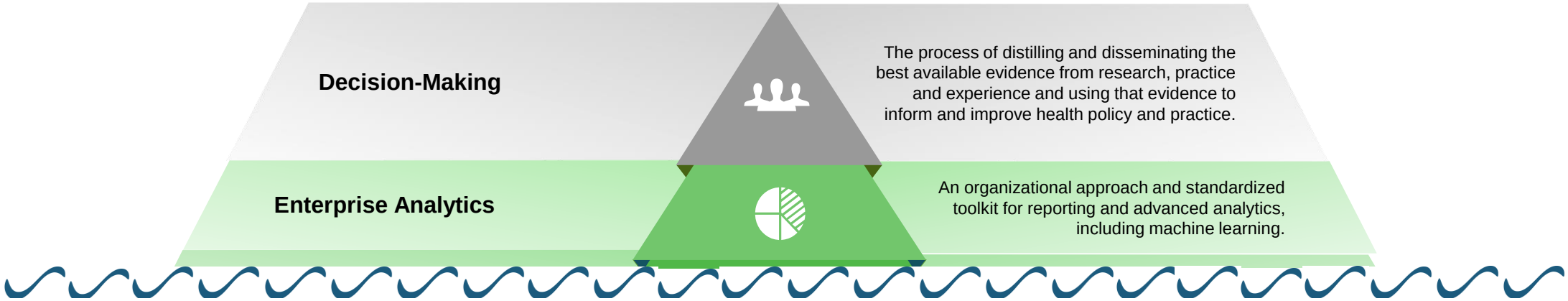
Data as a Utility

We need to change how we think of data to grow analytics in Nova Scotia

Utility vs. Luxury

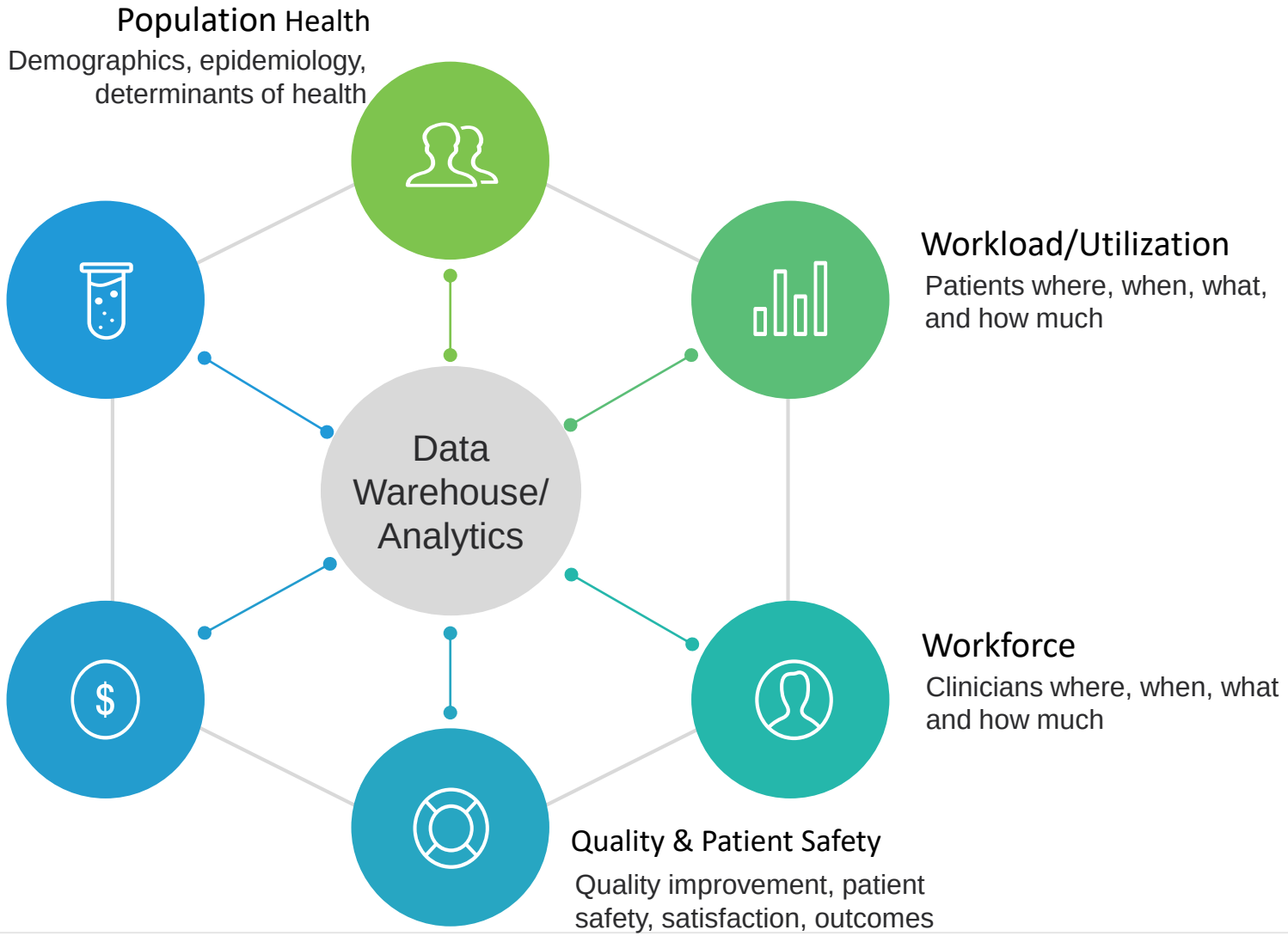
We tend to treat data as a luxury, we lock it away so that only approved people can access it. We should treat data like water. Life can't exist without it. We all need it. We wouldn't go anywhere without it. This is how we want our organization to think of data.

Scratching the surface



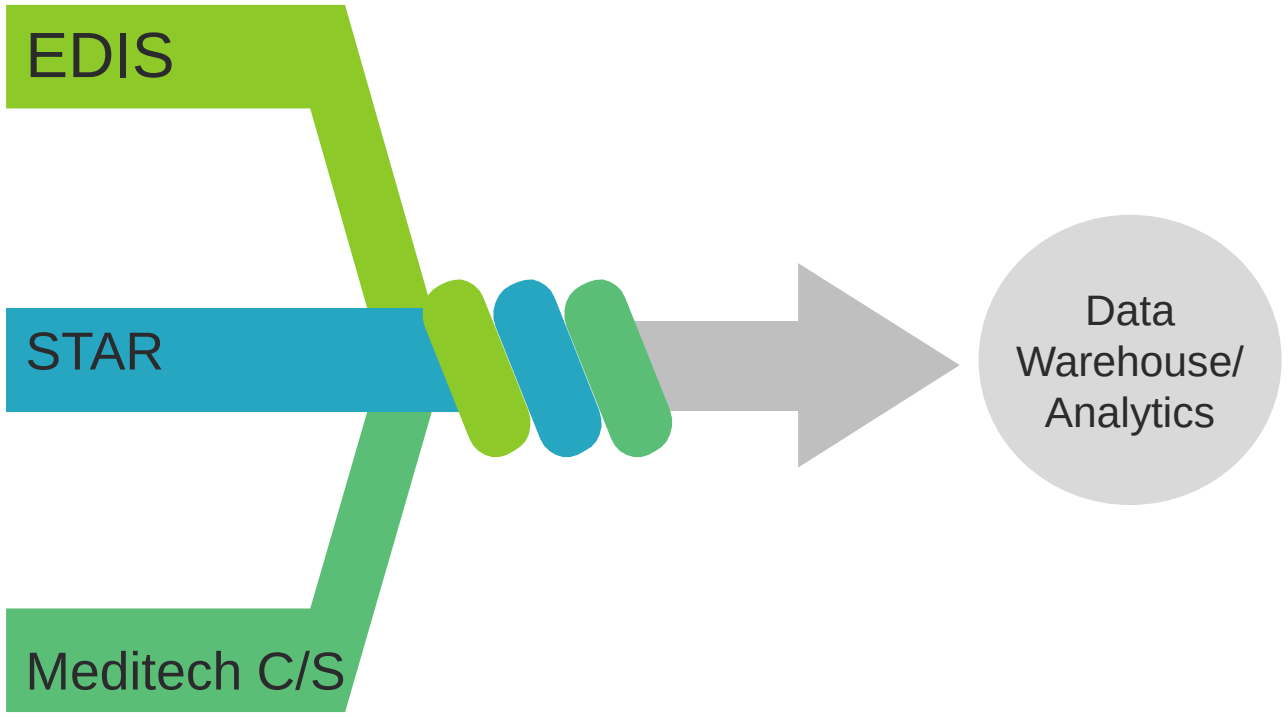
Where are we going?

Integrated Analytical Strategy



Building Harmonized ‘Essential Datasets’

Example: Emergency Department Encounters



Bi-Modal Analytics/Data Management

Bimodal is the practice of managing two separate, coherent modes of analytics delivery: one focused on stability and the other on agility.

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Agility for Analytics

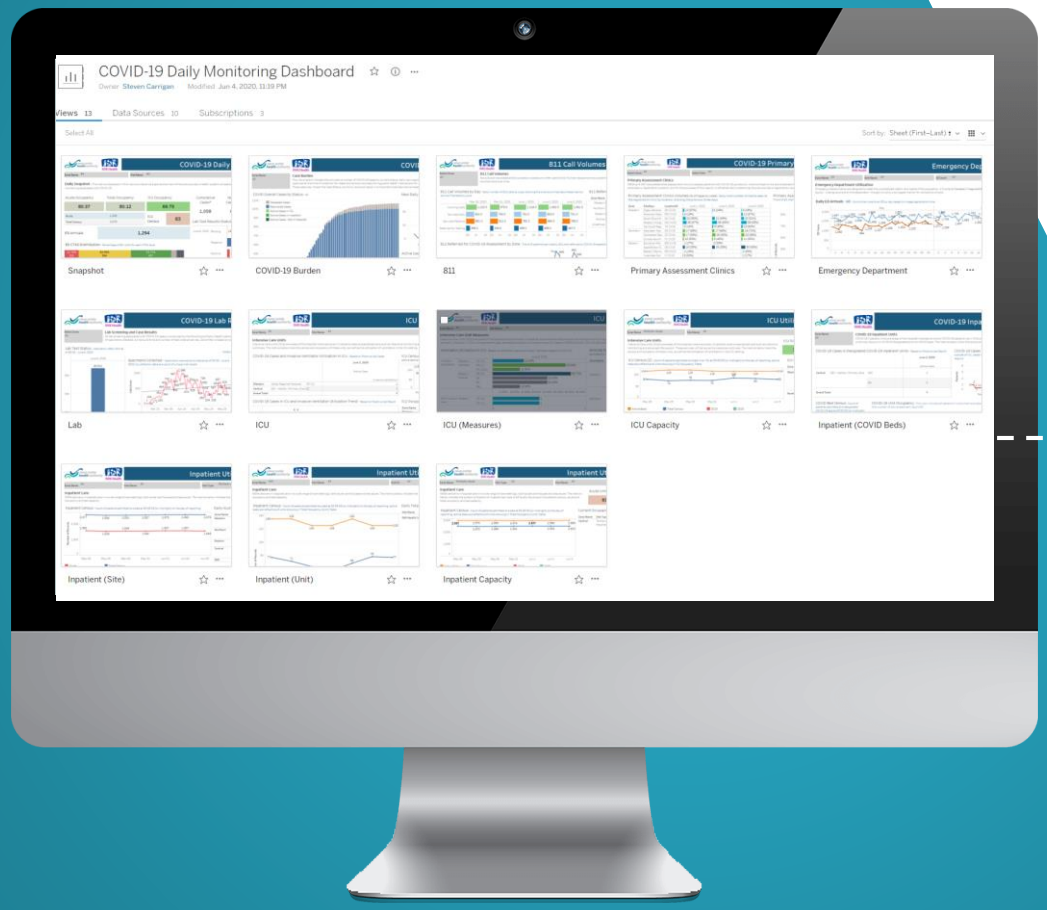
Exploratory, experimenting to solve new problems and optimized for areas of uncertainty. These initiatives often begin with a hypothesis that is tested and adapted during a process involving short iterations

Stability for Data Management and Reporting

Optimized for areas that are more predictable and well-understood. It focuses on exploiting what is known, while renovating the legacy environment into a state that is fit for a digital world.

NS Health Analytics Visualization Platform

Data at your fingertips



NSH Finance Experience

Implementing sharing of the current NSH financial situation with Senior Leaders in dynamic reporting tools.

Performance and Analytics Experience

Focused on building content to support understanding of system utilization by program/service and zones/site/units/services.

IM/IT Business Intelligence Experience

Focused on implementing and administering the server environment to ensure content is secure and available

NS Health Analytics Visualization Platform Journey

January 2019

Piloting Visualization tools in NSH

Review of Visualization tools, engagement and pilot with Tableau, proof of concepts with PA and Finance reporting

August 2019

Implement Pilot Tableau Server

Focus on provision of financial reporting to Senior Leadership, testing interactive PA dashboards in server environment, evaluating as infrastructure to support analytics and visualization platform

March 2020

Rapid Expansion of Pilot to support COVID-19 Response and Monitoring

Expansion from 100 to 250 viewers, focused on COVID-19 Response leaders and IMT teams, rapid development of content from a systems lens, incorporating IWK and DHW data and viewers

September 2020

Launch of NS Health Analytics Visualization Platform

Production implementation of Tableau Server in collaboration with NSDS, IMIT, Finance, PA, with support and governance model, integration of DHW viewers, expansion of access to 550 viewers, expansion of content from a finance, workforce and utilization and outcomes perspective.

Analytics Roadmap Benefits Realization

Case Study - Merged Emergency Program Dataset

One week to produce Emergency Program Dashboards **Monthly**

vs

5 minutes to produce Emergency Program Dashboards at **any time**

Past State

Extracting record level data from three source clinical information system in three different formats, running data through three separate calculator processes to generate aggregate monthly data, manually copy and paste aggregate stats into two separate reporting tools, validate totals, push to end users

Current State

Run record level or aggregated data from the single merged dataset, load once into single reporting tool, validate, push to end users

Visualization Platform - Governance

Visualization Platform – Content Governance

Content Management

How content is organized.

Authorization

How users authenticate and are granted permission to content.

Content Validation

What methods are used to validate content.

Content Promotion

How is content moved from a development area to a trusted production area.

Content Certification

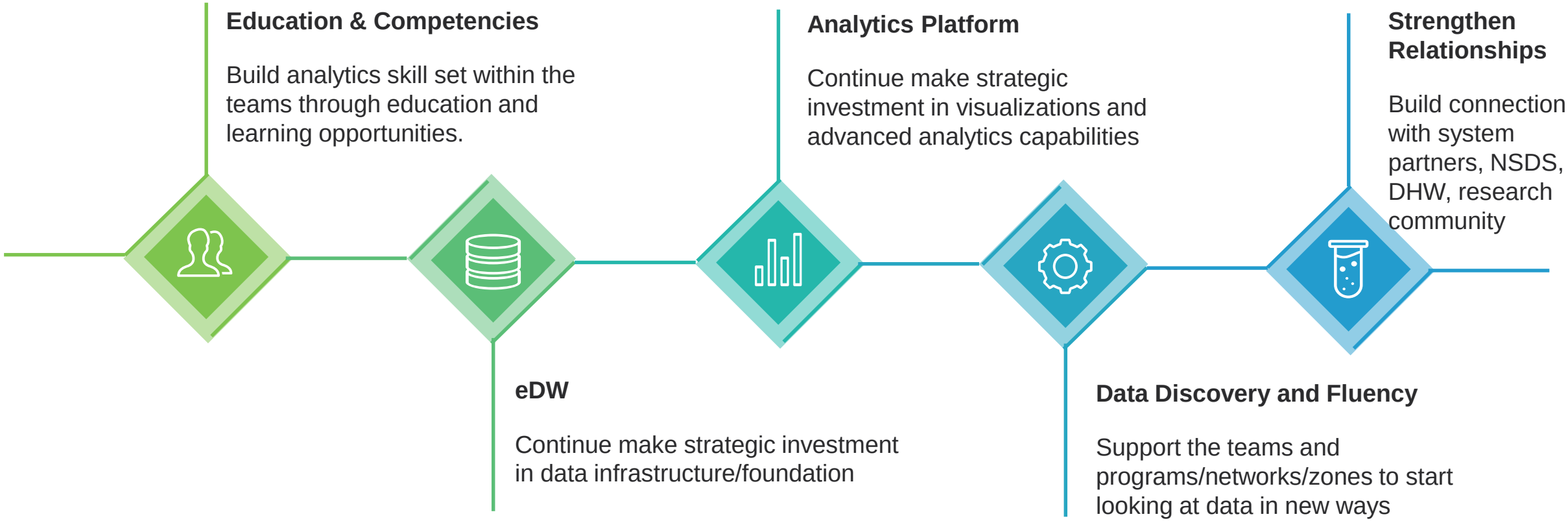
What criteria are used to ‘certify’ content.

Content Utilization

How usage data are combined with user feedback to enhance content.

Analytics Roadmap Next Steps

The steps we will take this year to move down the road



Education & Competencies

Build analytics skill set within the teams through education and learning opportunities.

eDW

Continue make strategic investment in data infrastructure/foundation

Analytics Platform

Continue make strategic investment in visualizations and advanced analytics capabilities

Data Discovery and Fluency

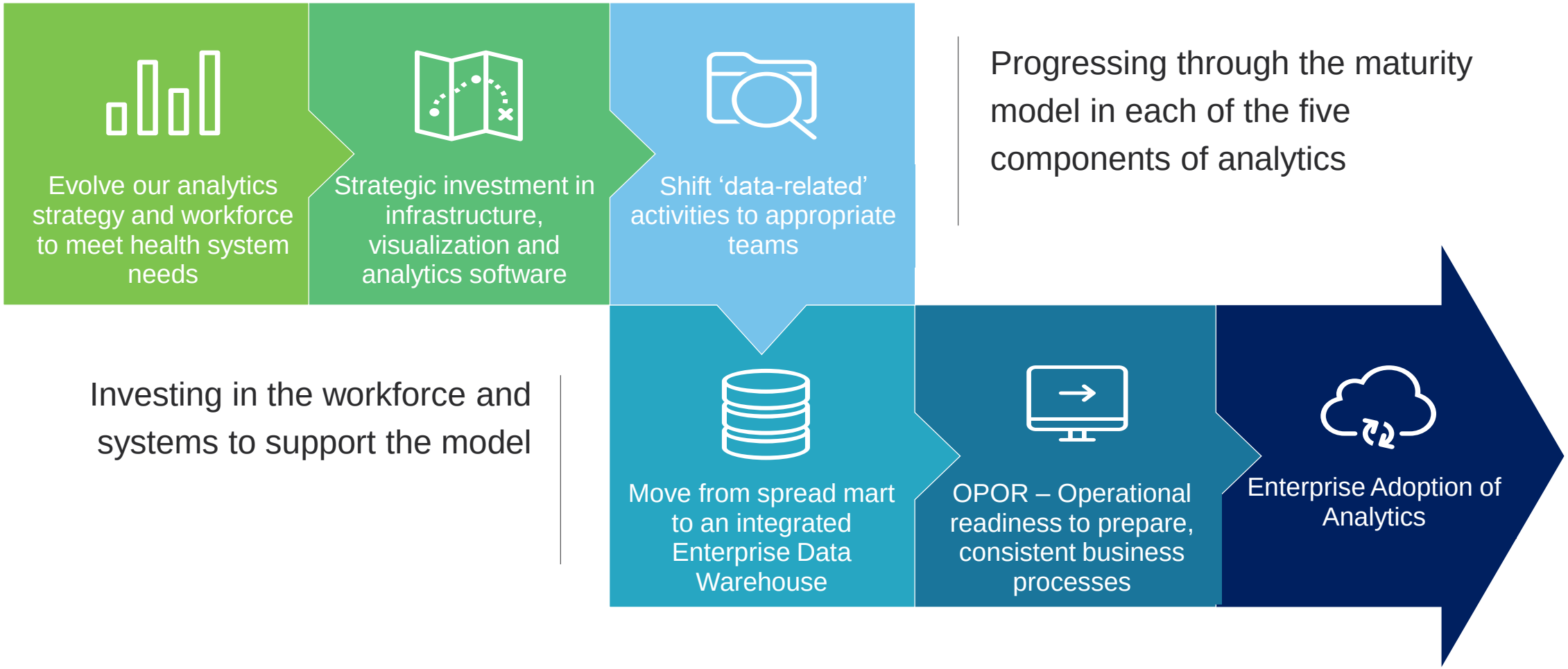
Support the teams and programs/networks/zones to start looking at data in new ways

Build data fluency in the organization

Strengthen Relationships

Build connection with system partners, NSDS, DHW, research community

Moving as an Enterprise



Progressing through the maturity model in each of the five components of analytics

Investing in the workforce and systems to support the model

THANK YOU

Question ?