FHWA Data Business Plan National Workshop

07/08/2020

Current State of Partnerships

➤ 2019 FHWA DBP Workshop

➤ 2020 Regional TSMO/ITS Architecture Update Coordination - Strategic Initiatives & Data Governance & Best Practices Report

➤ 2020 GDOT Data Purchasing Pooling effort (Eastern Transportation Coalition)

➤ 2020 State Road & Tollway Authority (SRTA) Enterprise Data Business Plan

2019 FHWA DBP Workshop Identified Key Needs

➤ Data inventory/catalog to document who has what and where it resides and how to access it

➤ Coordinate on data purchases

➤ Define and agree on common definitions (e.g., Mobility as a Service)

➤ Standards to share data across region

➤ Data maintenance to keep track of data ownership, consistency, and updating the system.

➤ Agreement between the agencies on their role and responsibilities to share their own portion and keep it updated.

2020 TSMO – Strategic Initiatives

Foundational Elements Focused Initiatives

Strengthen TSMO Planning & Institutions

Enhance Data Sharing & Management

Encourage TSMO Innovation

Deployment Focused Initiatives

Deploy Connected & Automated Vehicle Technologies

Advance Regional Coordination & Network Communications

Strengthen Work Zone & Event Management

Enhance Transit Operations

Advance Mobility as a Service

2020 TSMO – Regional Data Governance

Step 1 - Engagement
- Identify stakeholders (completed)
- 2019 FHWA DBP workshop (completed)

Step 2 – Data Scope
- Short term action plan (completed
- Develop data catalog (in progress)

Step 3 – Stewardship Strategies
- Develop data priorities and standards (not started)
- Publish data catalog (online)

Step 4 – Establish Governance
- Develop charter with organizational structure, roles, and responsibilities (in progress)

GDOT Pooled Data Purchasing Initiative (2020)

STATEWIDE DATA RESEARCH

April 2020

➤ Identifies data gaps and aims to avoid duplication between ARC, SRTA, & GDOT

➤ Peer review shows centralized joint data programs saves millions of dollars in other states

➤ Would establish a joint working group to identify shared data needs

➤ Would expand beyond ARC & GDOT over time

GDOT Pooled Data Purchasing Initiative
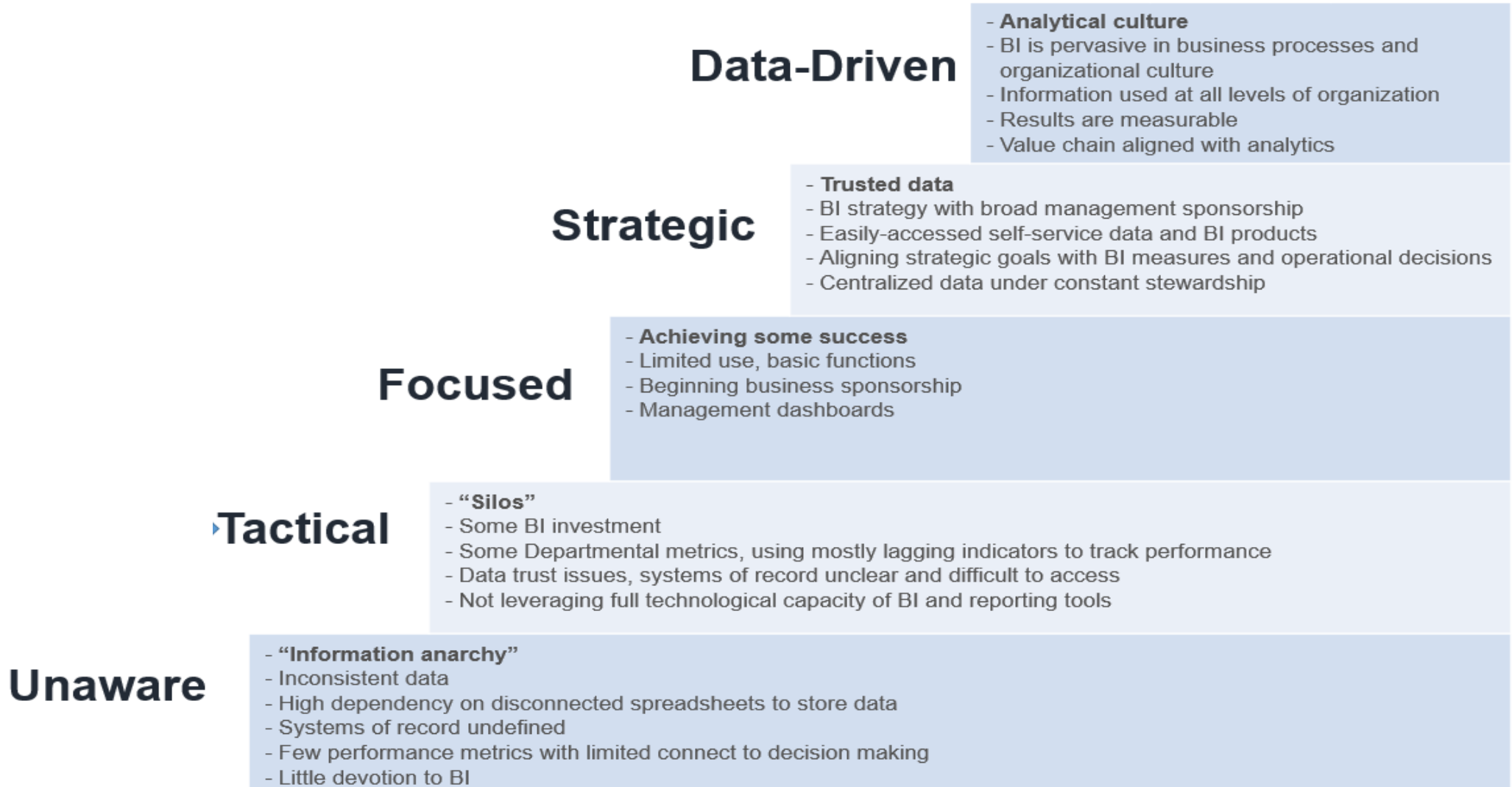

STATEWIDE DATA RESEARCH

April 2020

| Cost	Description
$2,000,000	Statewide trip, commercial vehicle, volume estimation, multimodal, and demographics analytics
$1,100,000	Statewide speed, travel time, congestion, user delay cost, and bottleneck analytics
$700,000	Statewide connected vehicle applications - commercial vehicle safety, dangerous slowdown, hazard warning, and mass messaging alerts
$700,000	Geodata and enhanced roadway attribute
$500,000	Software and data storage enhancements

2020 SRTA Enterprise Data Plan

➤ A 2 to 3-year roadmap with short and long-term initiatives

➤ Moves from the current "tactical" state of data usage to a mature, "data-driven" future state

➤ Addresses all facets of data organization and governance, business intelligence (BI) strategy, organization, resources, culture, technology, process, and knowledge management

2020 SRTA Enterprise Data Plan (Steps towards Maturity)

Data-Driven
- **Analytical culture**
- BI is pervasive in business processes and organizational culture
- Information used at all levels of organization
- Results are measurable
- Value chain aligned with analytics

Strategic
- **Trusted data**
- BI strategy with broad management sponsorship
- Easily-accessed self-service data and BI products
- Aligning strategic goals with BI measures and operational decisions
- Centralized data under constant stewardship

Focused
- **Achieving some success**
- Limited use, basic functions
- Beginning business sponsorship
- Management dashboards

Tactical
- **"Silos"**
- Some BI investment
- Some Departmental metrics, using mostly lagging indicators to track performance
- Data trust issues, systems of record unclear and difficult to access
- Not leveraging full technological capacity of BI and reporting tools

Unaware
- **"Information anarchy"**
- Inconsistent data
- High dependency on disconnected spreadsheets to store data
- Systems of record undefined
- Few performance metrics with limited connect to decision making
- Little devotion to BI

2020 SRTA Enterprise Data Plan ("Tactical" Pre-Condition)

Decentralized Data Siloes by Program Area

Highly Manual Data Blending & Siloed Transformations

Discrete and High-Level Targets by Program Area
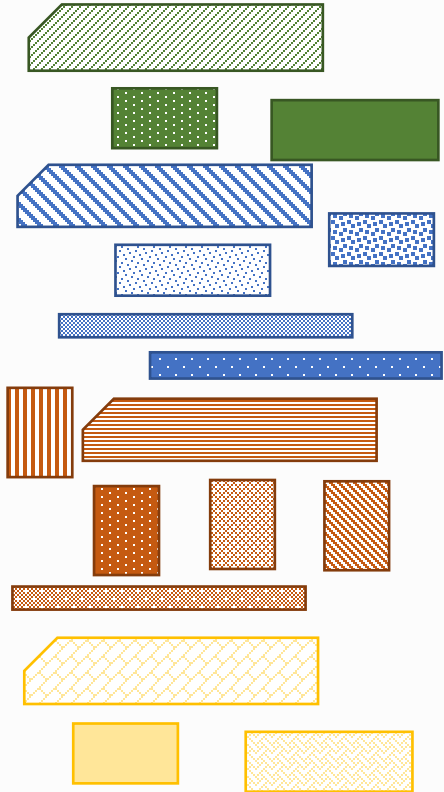
Decentralized & Unsocialized Data Governance & Quality Management

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Unclear or Duplicative Roles & Responsibilities

Routine Reporting & Ad-Hoc Analytics

Emerging BI Tools by Program Area

2020 SRTA Enterprise Data Plan ("Focused" Outcome)

Design and Build a Stable, Centralized Data Architecture
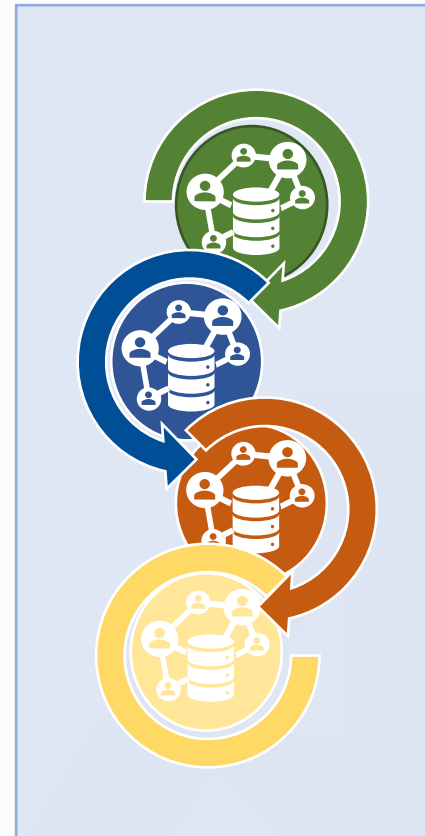*(Build the House)*
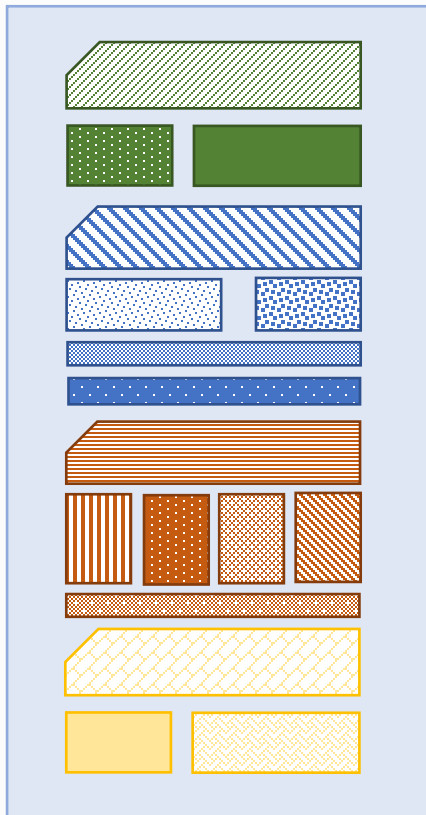
Clarify and Socialize Data Governance & Data Stewardship Roles & SOPs

(Cut the Scramble)

Streamline and Automate Data Processing
(Tank the Crank)

Develop a Comprehensive Business Intelligence (BI) Environment and Enterprise Knowledge Library to Enable Self-Service Analytics & Research across All Program Areas

(Open More Gates)

Trending Challenges and Obstacles

➤ It's never NOT overwhelming

➤ On-going cataloguing of existing data inventory and future data needs

➤ Development and implementation of a centralized data hub/platform

➤ Forecasting direct and in-direct costs (and savings) of all of this, even in the short-term

➤ Delineating championship roles

➤ CV data management

➤ Micromobility data access and real-time trip planning (MaaS/MoD)

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