



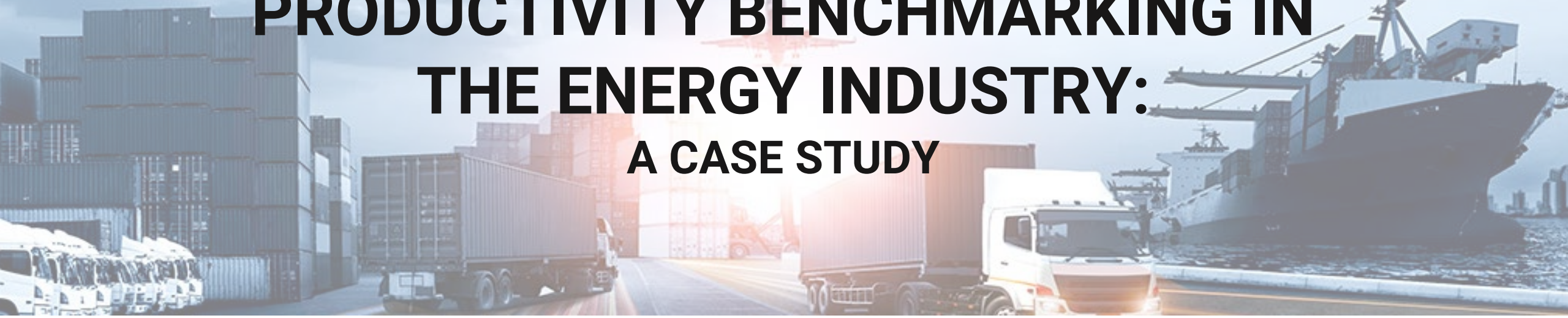
ENERGY & MOBILITY

TECHNOLOGY, SYSTEMS AND VALUE CHAIN
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SEPT 12-15, 2023 • I-X CENTER • CLEVELAND, OHIO

HARNESSING POWER BI FOR PRODUCTIVITY BENCHMARKING IN THE ENERGY INDUSTRY: A CASE STUDY



9/14/2023

ADAM MAXAM | P3 ADAPTIVE



1.0 Welcome

- **What is Power BI?**
- **Retrospective on Success**
- **Who We Are**

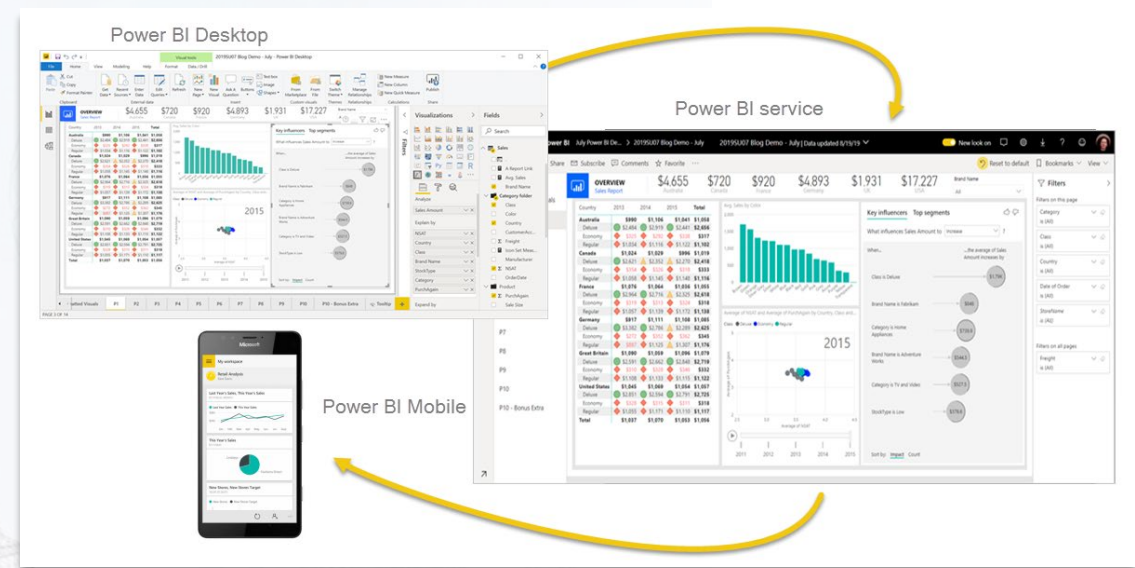
1.1

WHAT IS POWER BI?



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Power BI is a **business analytics service** by **Microsoft** that provides interactive visualizations and business intelligence capabilities. It allows users to **connect** to various data sources, **model** and **analyze** data, and **create** interactive reports and dashboards to **share** insights.



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1.2

RETROSPECTIVE ON SUCCESS

A major U.S. energy utility implemented enterprise-wide productivity analytics for internal benchmarking.



1.3

WHO WE ARE



Adam Maxam

Director, Client Services at P3 Adaptive

We handle Power BI implementations across all industries, domains, and organization sizes.

2.0 Situation Overview

- **Barriers to Insight**
- **Vision for Transformation**
- **A Modern Solution**

2.1

BARRIERS TO INSIGHT

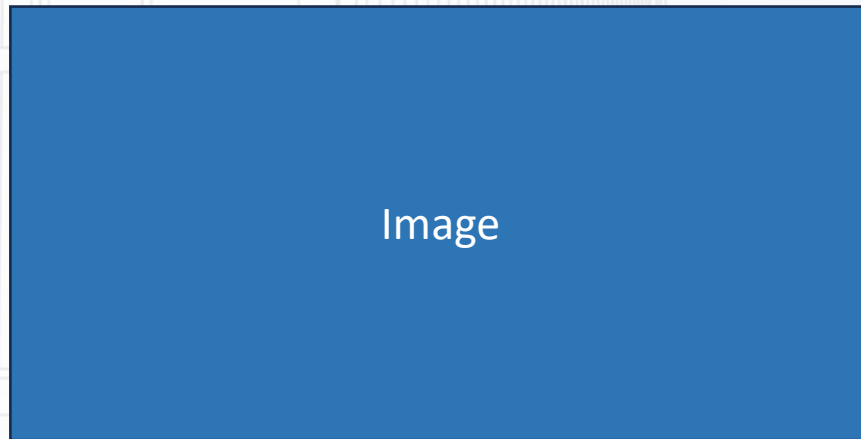
- X Lack of standardized metrics** for comparing performance
- X Inability to analyze performance** at various levels of the organization
- X Inability to identify** areas of excellence and areas needing improvement

2.2

VISION FOR TRANSFORMATION

Power BI Dashboards

from 12+ data sources



Data-Driven Governance Process



2.3

A MODERN SOLUTION

Combine and transform data

from a dozen information systems



...



Codify business logic

for standardized metrics

Create interactive visualizations

with capabilities for

- **Dimensional** segmentation
- **Hierarchical** analysis
- **Outlier** analysis
- **Trending**

3.0

Barriers at the Outset

- **Organizational Silos**
- **Disparate Data and Dispersed Knowledge**

3.1

ORGANIZATIONAL SILOS

Multiple operating companies lacking consistency

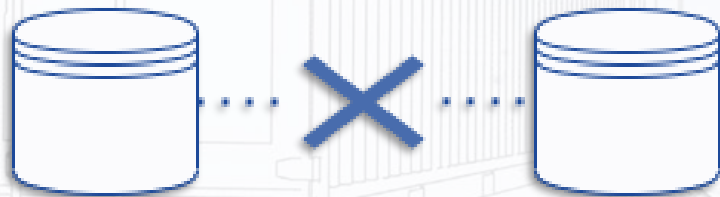
- Separate **information systems** for similar functions
- Unique **business processes** for similar work
- Variations of **metrics** and separate reporting

3.2

DISPARATE DATA AND DISPERSED KNOWLEDGE

Disparate Data

Information systems are isolated, not designed to integrate for wholistic analytics.



Dispersed Knowledge

Institutional knowledge was just as siloed as the data itself.



4.0

Power BI as The Solution

- Components
- Interactive and Intuitive UI

4.1 COMPONENTS

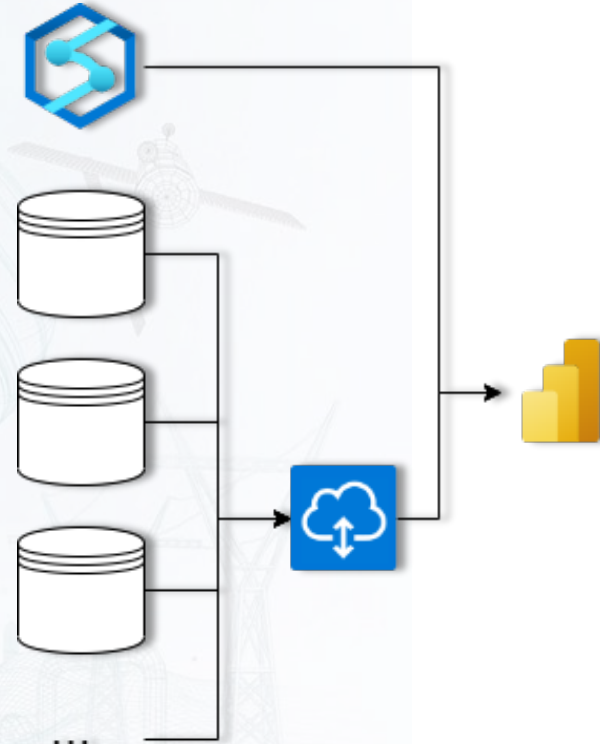
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Blending disparate data sources

- 200+ tables from a dozen information systems
- Mixed architecture
 - Data lakes and data warehouses
 - Direct database connections
 - Flat files - CSV and Excel

Encoding business logic and metric calculations

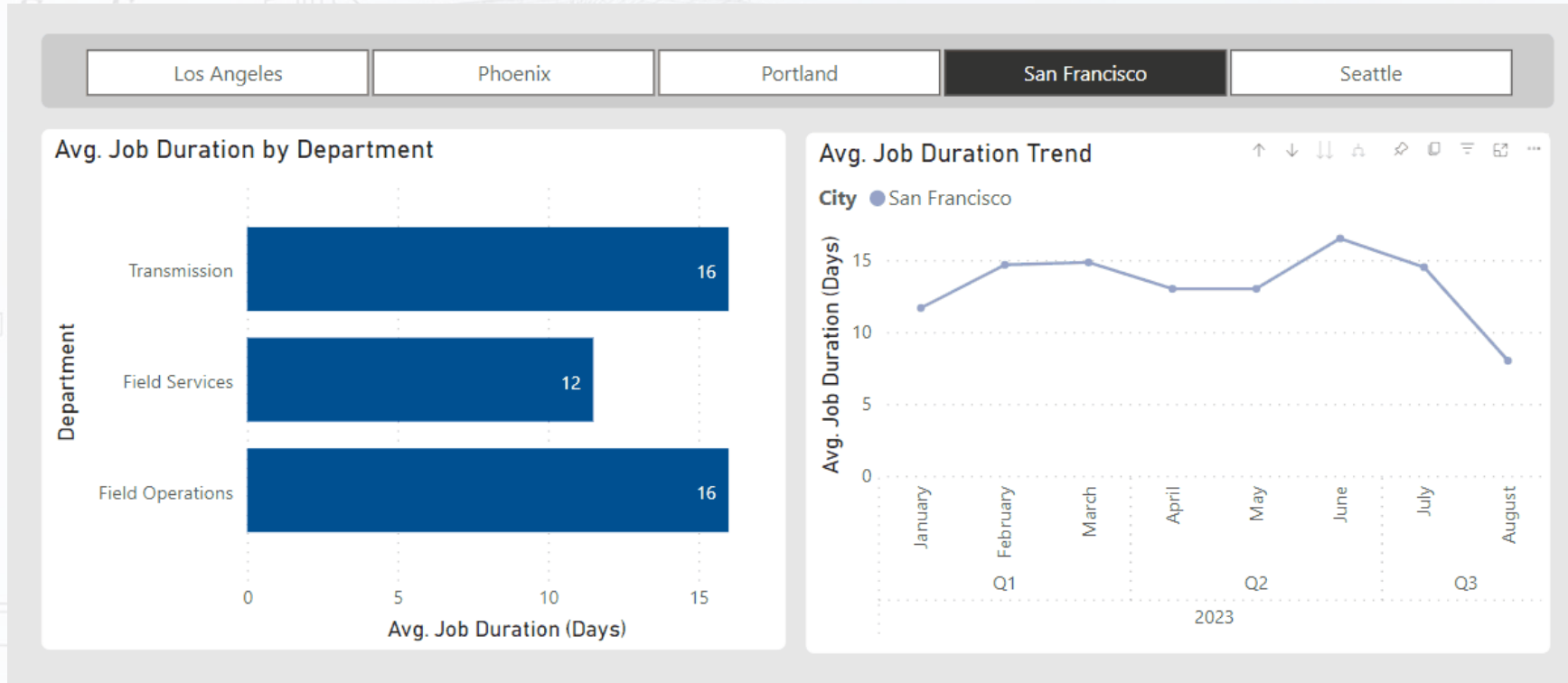
- 100+ measures encoding the nuanced business logic necessary for standardized, like-for-like comparisons



4.2

INTERACTIVE AND INTUITIVE UI

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5.0 Delivering the Vision

- Direct Impact
- Cultural Impact

5.1 DIRECT IMPACT

Yielded millions of dollars in benefits within the first year following implementation.

Data-driven initiatives around:

Workforce Planning

Tools & Technology

Work Methods

Training

Enabled tangible impacts on:

Safety

Customer Satisfaction

Finances

Quality

Efficiency

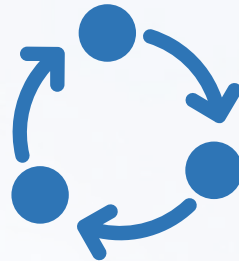
5.2

CULTURAL IMPACT

Data, people, and processes were coordinated to create a culture of:



Knowledge sharing
around best practices



Continuous improvement



Tracking progress
to results

6.0 Keys to Success

- Agile Approach
- Blended Project Team

6.0

KEYS TO SUCCESS

Agile Approach

- Start with a pilot phase – use data where it is today
- Deliver incremental value

Blended Project Team

- Internal tribal knowledge
- External technology expertise

7.0

Roadmap for the Future

7.2

ROADMAP FOR THE FUTURE

(GROWING THE FOOTPRINT OF POWER BI AND DATA-DRIVEN DECISION MAKING)

Additional use cases identified for Power BI:

- **Customer Experience**
- **Environmental sustainability**
- **Safety analytics**
- **Asset management**
- **Operational monitoring**
- **Revenue assurance**
- **Budgeting and forecasting**
- **Change readiness**



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