PI Integrator for Business Analytics – Enterprise Reporting
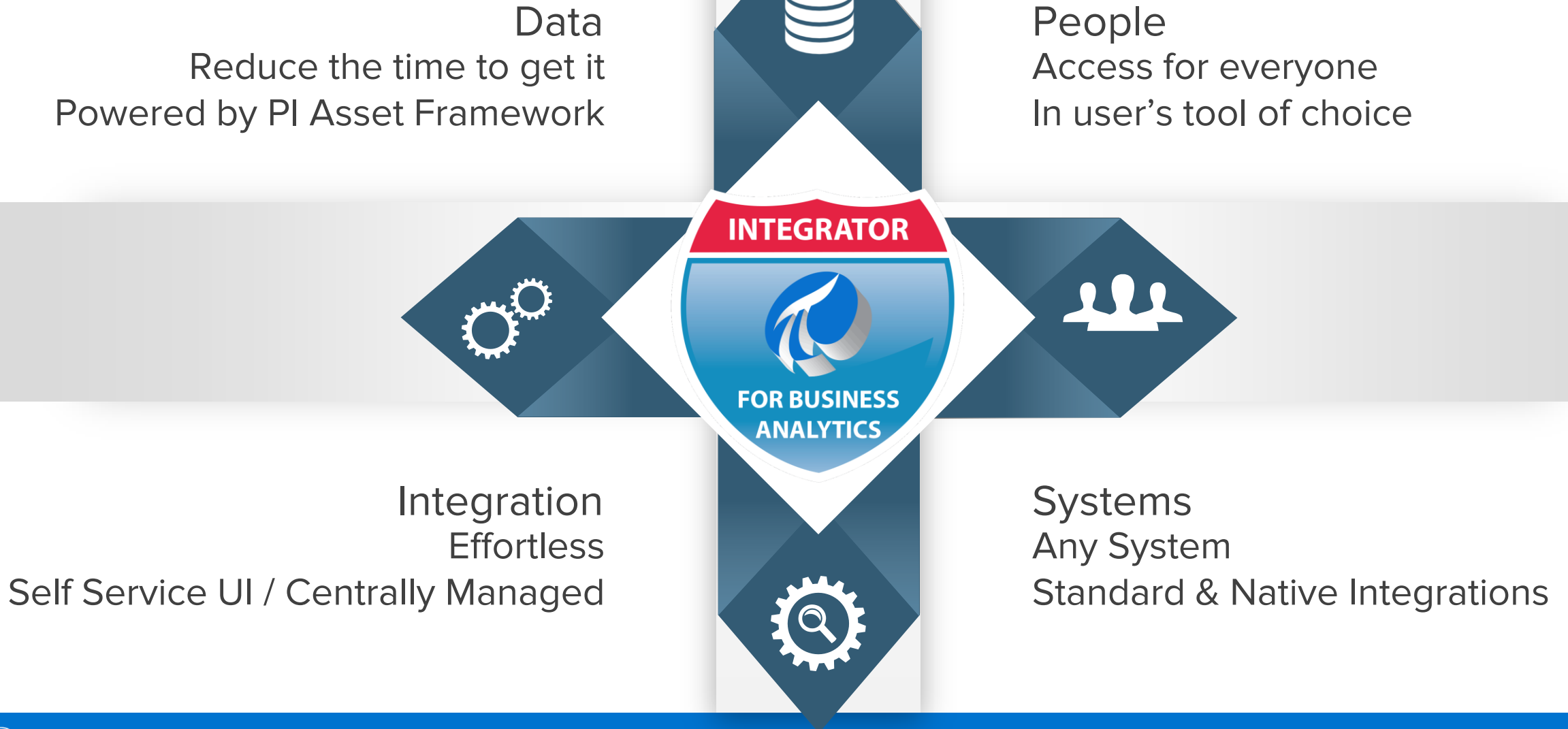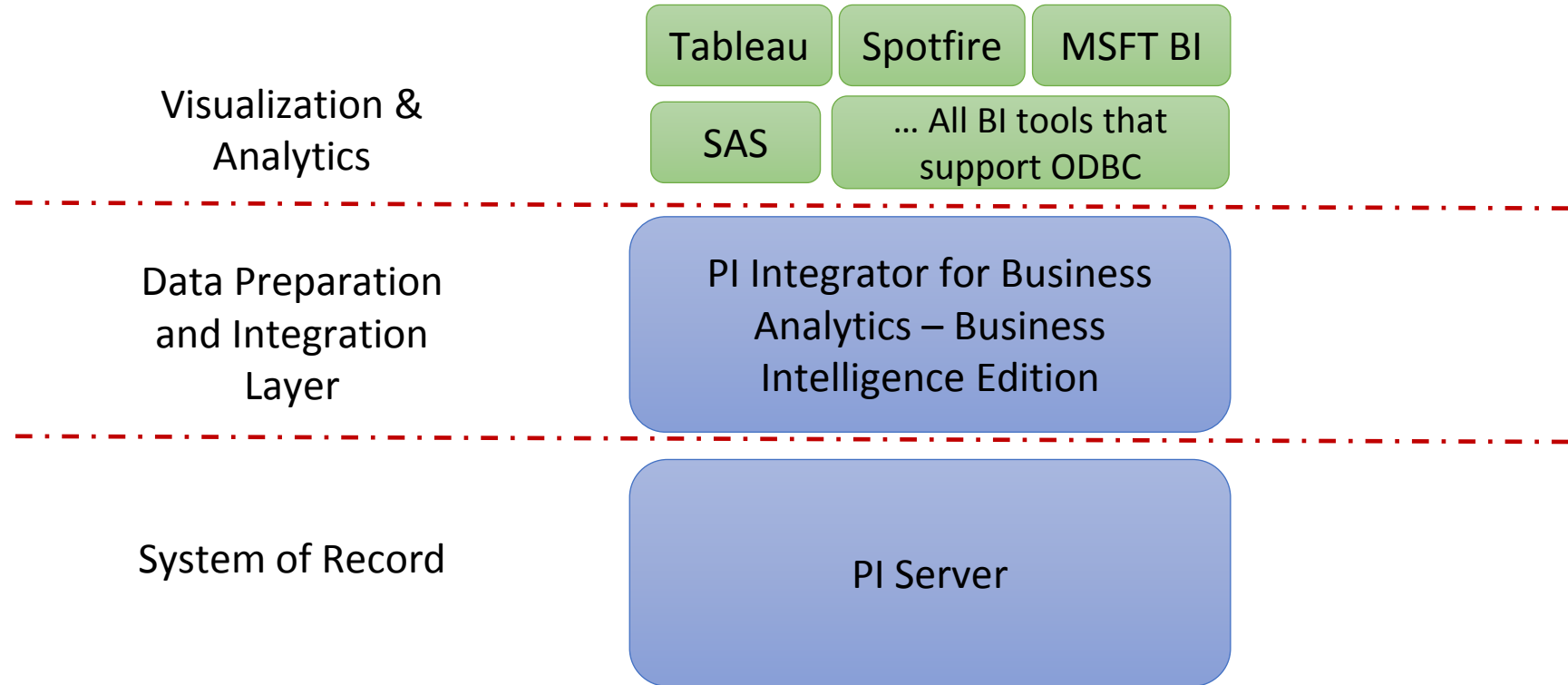
Presented by Matt Ziegler

Empowering: People – Systems – Process

Data
Reduce the time to get it
Powered by PI Asset Framework

People
Access for everyone
In user's tool of choice

INTEGRATOR FOR BUSINESS ANALYTICS

Integration
Effortless
Self Service UI / Centrally Managed

Systems
Any System
Standard & Native Integrations

OSIsoft.

Operational Reporting & Analysis Architecture

Enterprise Data Warehouse Architecture

| Visualization & Analytics | Tableau | Spotfire | SAS | MSFT BI | Custom Applications |

| Enterprise Data Warehouse / Data Mart / Data Lake | Oracle DW, SQL Server, Teradata | Hadoop |

| Data Preparation and Integration Layer | PI Integrator for Business Analytics | Custom or 3rd Party Data Management and ETL |

| System of Record | PI Server | CRM | Sales | EAM | ERP | HR | ... |
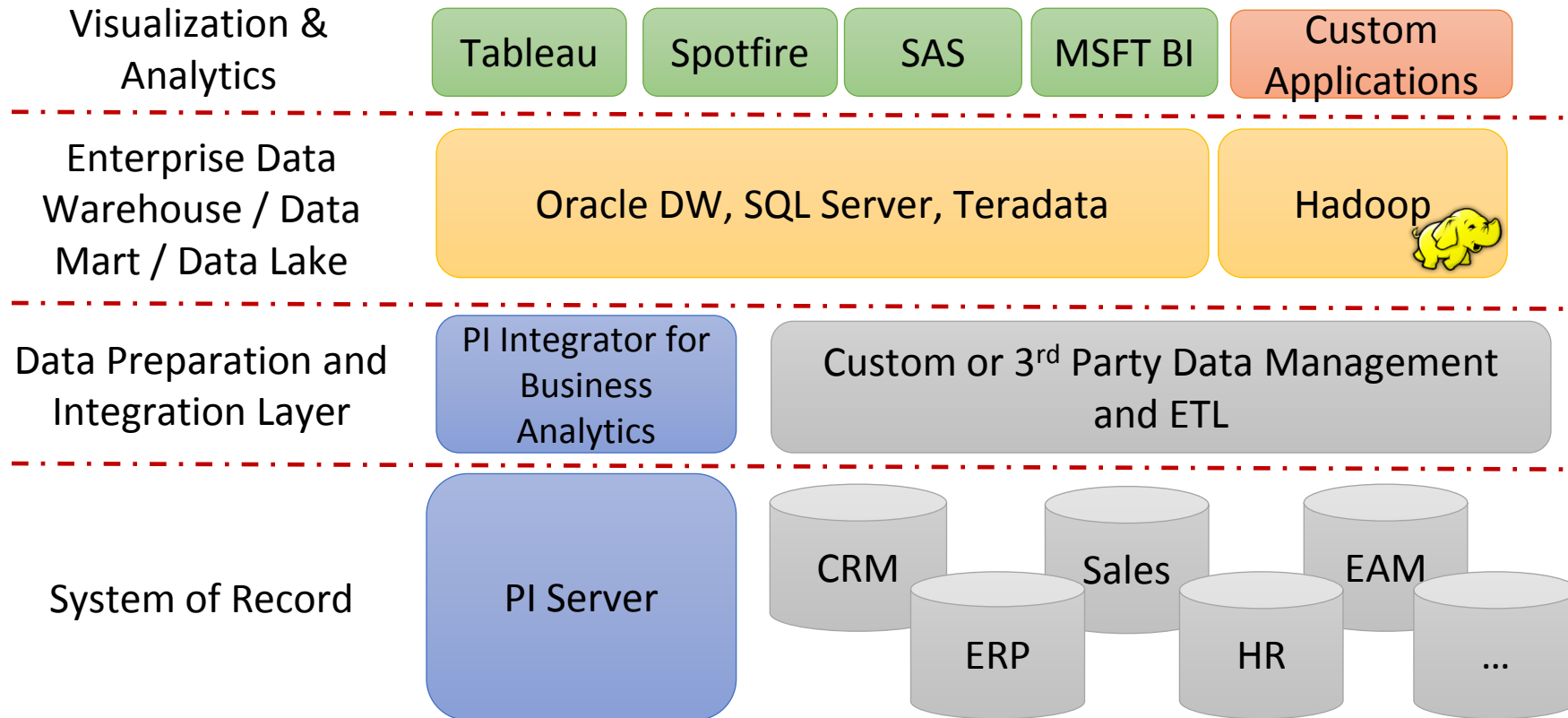
I need to fit operational data into my existing company IT information architecture

How to Properly Model Data

Weather
— Temperature
— Wind Speed
— Heat Index
— Cooling Degree Days

Date & Time
— Month
— Day
— Hour
— Shift

Off-Peak Partial Peak Peak

Peak Status

Context stored
in PI System
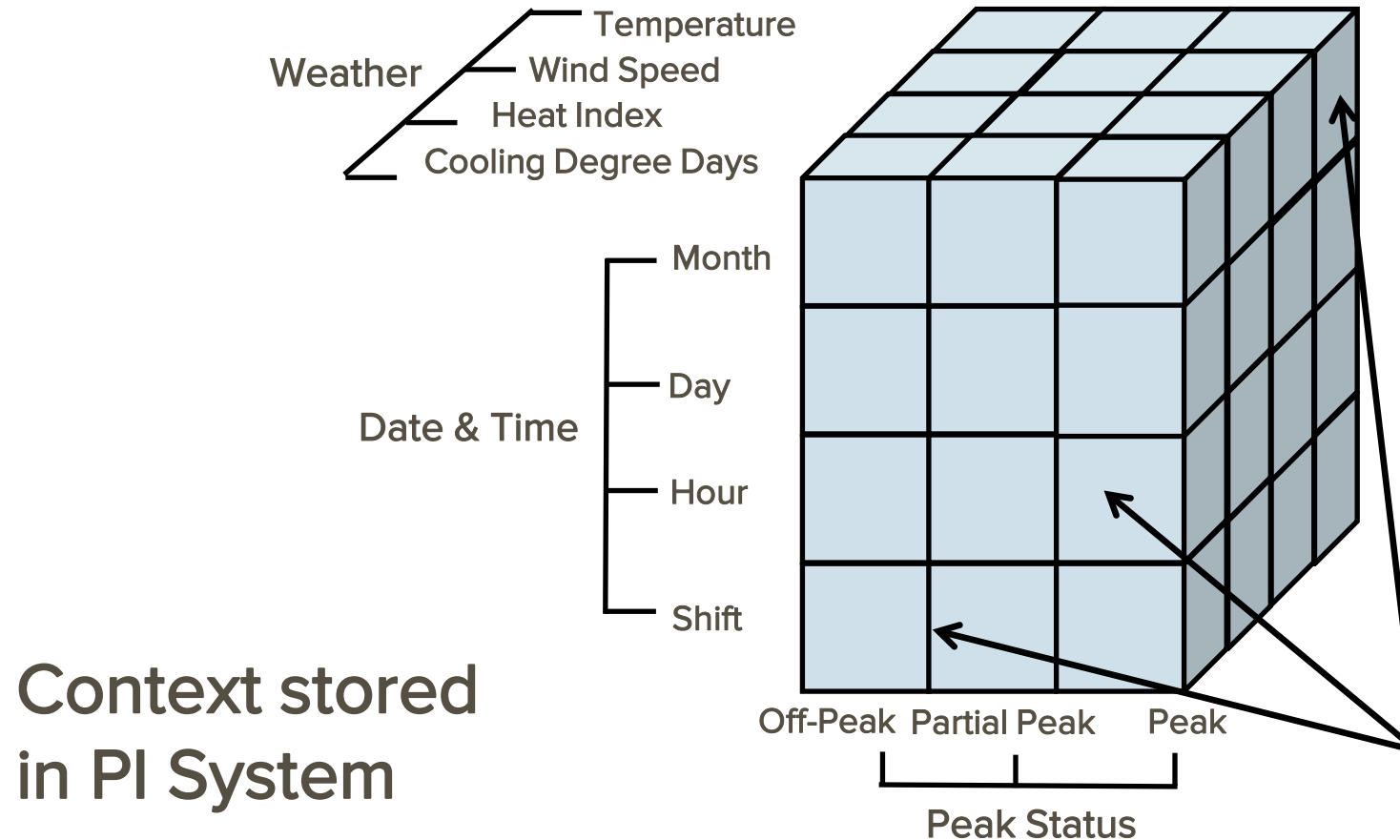
Show me the total
energy cost

For the first shift

During Peak Status

Time-series data
stored in PI System

OSIsoft.

Can HVAC problems be predicted & prevented?

pi4barc1/

+ Create Asset View
Build a data view starting with your asset hierarchy.

Modify View
Modify existing data view.

X Remove View
Remove selected view

🔒	Name	Run Status	Type	Run Mode	Start Time	End Time	Last Run Time ▼≡
🔒	San Leandro Weather	Scheduled	Asset	Continuous	1/1/2014	*	10/11/2015 00:41:44 AM
🔒	San Leandro Zone Temperatures	Publishing	Asset	Continuous	1/1/2014	*	10/11/2015 00:48:31 AM

Overview   Log   Security

🔒 **Run Status:**   **Scheduled**   **Publish Actions**   **Shape**

View Name: San Leandro Weather   ▲ ⊙ San Leandro Office
                                                                                                  ▲ ⊙ Weather Conditions
PI AF Database: San Leandro Office HVAC   🔖 Cooling Degree Days
                                                                                                       🔖 Cooling Degree Hours
Publish Target: PI View   [Resume   ]   🔖 Cooling Degrees
                                                                                                       🔖 Heating Degree Days
View Type: Asset   🔖 Heating Degree Hours
                                                         [Stop   ]   🔖 Heating Degrees
Run Mode: Continuous   🔖 Outdoor Humidity (%)
                                                                                                       🔖 Outdoor Temperature (F)
Run Frequency: 4 Hours   ▲ ⊙ Power
                                                                                                       🔖 Real Power
Last Run Time: 10/11/2015 00:41:44 AM

File   Data   Server   Help
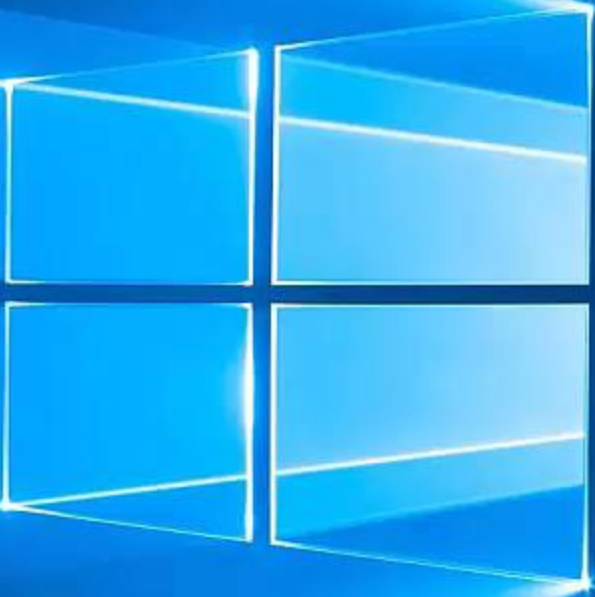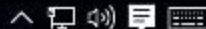
Connect

To a file

Excel

Text File

Access

Statistical File

Other Files

To a server

Tableau Server

Other Databases (ODBC)

Actian Vector

Amazon Aurora

Amazon EMR

More Servers...

Saved data sources

Sample - Superstore

World Indicators

Open

Open a workbook

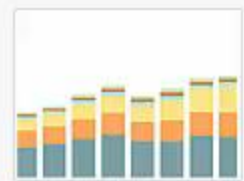## Sample Workbooks

More samples

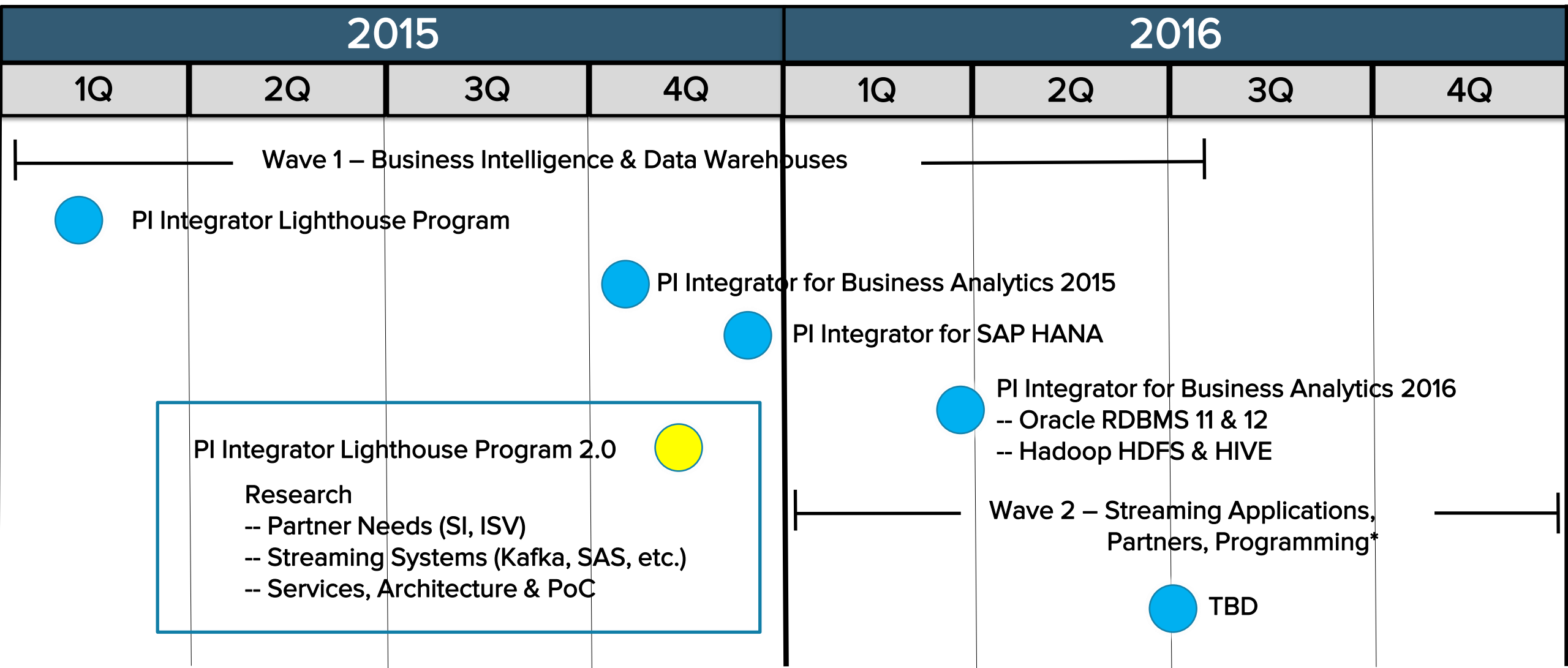Superstore

Regional

World Indicators

Next Steps

Data
Gather more data
HVAC Power Profiles

People
Verify your data and conclusions
with reality and actual people

INTEGRATOR

FOR BUSINESS ANALYTICS

Integration
Share data with HVAC contractor

Systems
Determine an action plan for
Improvement and information
distribution

PI Integrators Roadmap

2015				2016			
1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q

Wave 1 – Business Intelligence & Data Warehouses

PI Integrator Lighthouse Program

PI Integrator for Business Analytics 2015

PI Integrator for SAP HANA

PI Integrator for Business Analytics 2016
-- Oracle RDBMS 11 & 12
-- Hadoop HDFS & HIVE

PI Integrator Lighthouse Program 2.0

Research
-- Partner Needs (SI, ISV)
-- Streaming Systems (Kafka, SAS, etc.)
-- Services, Architecture & PoC

Wave 2 – Streaming Applications,
Partners, Programming*

TBD

Commercial Model

PI Integrator for Business Analytics			
	BI Edition	Data Warehouse Edition	SAP HANA Edition
PI Views			
--Access data via ODBC	X	X	
Native Connections			
--SQL Server		X	
--Flat File		X	
--SAP HANA			X
Data Flow			
--By calendar times	X	X	X
Common Features			
--Create Asset Views	X	X	X
--Cleanse and filter data using Event Frames	X	X	X
--Automatic Dimensionally modeled data	X	X	X

PI Integrator for Business Analytics			
Output Data Streams	BI Edition	Data Warehouse Edition	SAP HANA Edition
1000	Talk	-	-
2500	to	-	-
5000	-	Your	-
10000	-	OSIsoft	Sold By
20000	-	Account	SAP
50000	-	Manager	-
100000	-	Today	-

Not included in most Enterprise Agreements

OSIsoft

Contact Information

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Questions

Please don't forget to...
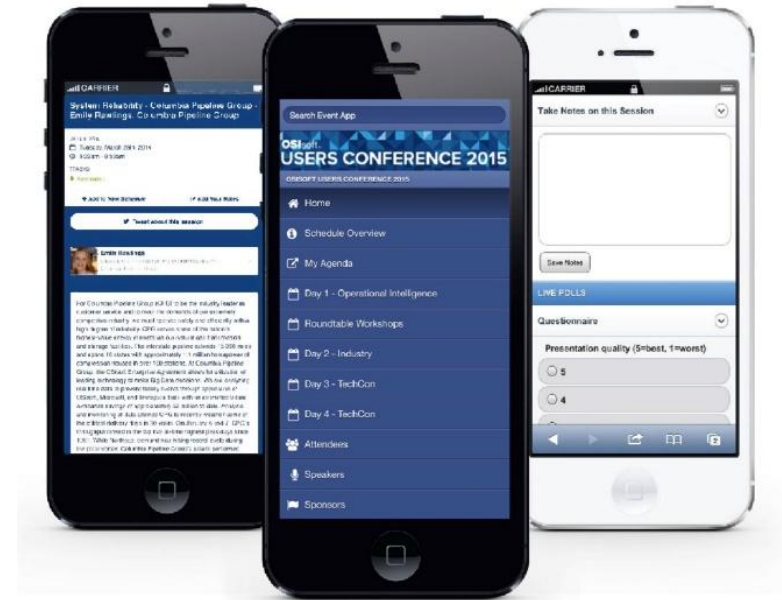
Please wait for the **microphone** before asking your questions

State your **name & company**

Complete the Online Survey for this session

http://eventmobi.com/emeauc15

감사합니다

谢谢

Danke

Gracias

Merci

Thank You

ありがとう

Спасибо

Obrigado