



THE HARD PATH FOR THE TECHNOLOGICAL TRANSFORMATION

«BUSINESS INTELLIGENCE & ANALYTICS»

14 April 2022: 14.00 – 17.00

Speaker
Andrea
Schiavi

YOUR TODAY SPEAKER

Andrea Schiavi

Business Intelligence Consultant, Tableau Developer & Project Manager of Kalyte (a Philmark Group company)



I've been working for:

- World Food Programme (WFP)
- Octo Telematics;
- Cassa Depositi e Prestiti;
- Municipality of Bologna;
- European Space Agency (ESA)

SEMYNAR STRUCTURE

Speaker	Day	Topic	Room
Andrea Schiavi	14/04/2023 - 14.00/17.00	Business intelligence & Analytics	P4
Adriana Fidanza	21/04/2023 – 14.00/17.00	Artificial Intelligence and Machine Learning for Business	P4
Adriana Fidanza	28/04/2023 – 14.00/17.00	Artificial Intelligence and Machine Learning for Business	P4
Cecilia Buzzi	05/05/2023 – 14.00/17.00	Project Management	P4
Cecilia Buzzi	12/05/2023 – 14.00/17.00	Project Management	P4
Giulia Zinanni	19/05/2023 – 14.00/17.00	Web applications in business environment	P4

At the end of learning path there will be a final test in order to evaluate your knowledge or your achievements. This semynar will not give you a vote but only an suitability.



PHILMARK
GROUP

WHO WE ARE

We are a smart, young and dynamic company. For more than 12 years, we're working in the ICT market as an ideal partner who leads the companies technological renewal. We have a very thin and flexible organizational model based on the different companies with a centralized governance. We are expert in Big Data, Machine Learning, Data Analytics, app development, web e Mobile, Gamification, process analysis, ERP, management of technologies asset.



PHILMARK GROUP

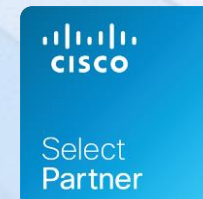


Philmark Group has a organizational model based on vertical specializations: many different companies, indipendent from each other, with a centralized governance that it has the purpose providing tailored solutions as the market require

KEY FACTS

300
EMPLOYEES

PARTNERSHIP



4
BRANCHES
(ROME, MILAN,
PRIVERNO,
CIVITAVECCHIA)

SOME CUSTOMERS

Almaviva

Atos



DEDAGROUP

Deloitte.

DOUBLE
CONSULTING
an expleo company

elica

enel

ENGINEERING
INGEGNERIA
INFORMATICA

EUROBET

Jacob Holm
MAGIC MEETS FABRIC

InfoCert
TINEXTA GROUP

intralot

KPMG

LOTTOMATICA

LUTECH

MEDIO CREDITO
CENTRALE
|
INVITALIA
|

NTT Data
Global IT Innovator

OCTO


PHILIP MORRIS

SNAI

VIVATICKET

BUSINESS INTELLIGENCE & ANALYTICS

CONTENT

- What is Digital Transformation?
- What is Business Intelligence?
- Why Business Intelligence is part of Digital Transformation?
- Business Intelligence Market Overview
- Architectural Framework
- Data Design
- Data Integration Design
- Business Intelligence Design
- Advanced Final Output
- KPI Metrics and Dashboard

WHAT IS DIGITAL TRANSFORMATION?

- Digital transformation is the integration of digital technology into all areas of a business, fundamentally changing how you operate and deliver value to customers.
- It's a cultural change that requires organizations to continually challenge the status quo, experiment, and get comfortable with failure.



WHY BI IS PART OF DG?

Set up a Business Intelligence environment into a company means put in place successful change processes to a data-driven organization.

This means should be able to organize processes around customers and technologies around data in a digital way. Technologies such as Business Intelligence improves the quality of data and, therefore, the quality of decisions that fuel your business.



WHAT IS BUSINESS INTELLIGENCE?

- Is a set of business processes to collect and analyze data;
- is a set of technologies for realizing business process (point above);
- the information elaborated as a result of all this processes.



BI MARKET OVERVIEW

- Business Intelligence Statistics
- Business Intelligence Trend
- Key Drivers
- Market Size
- Market Evolution
- How BI Helps Business



BI STATISTICS (1/2)

51%

use analytics to develop
products and services

50%

use analytics to drive process
and cost efficiency

46%

use analytics to manage risk

41%

use analytics to find new
customers

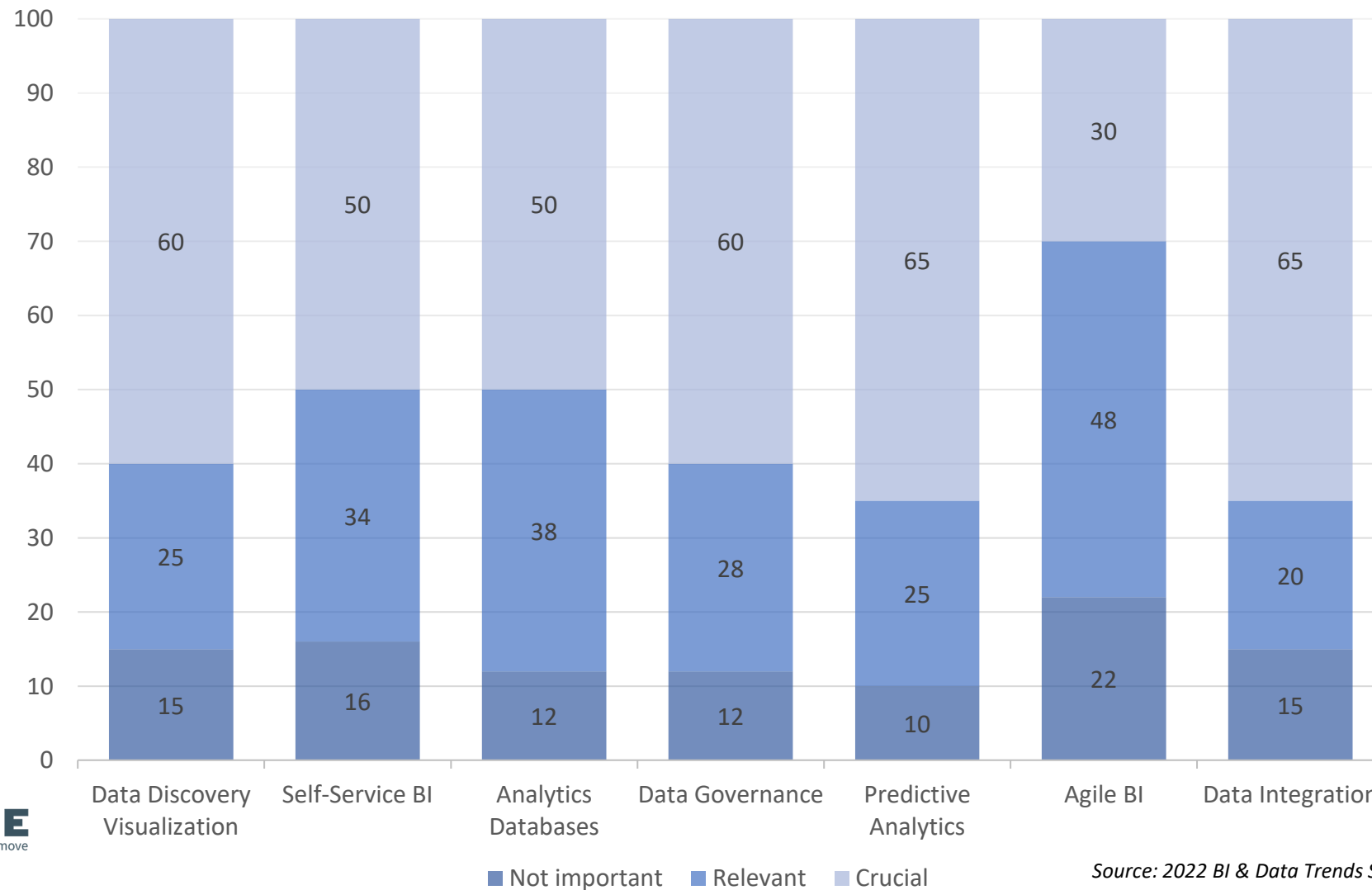
44%

use analytics to analyze
existing customers in terms
of needs and value

48%

use analytics to drive
Strategy and change

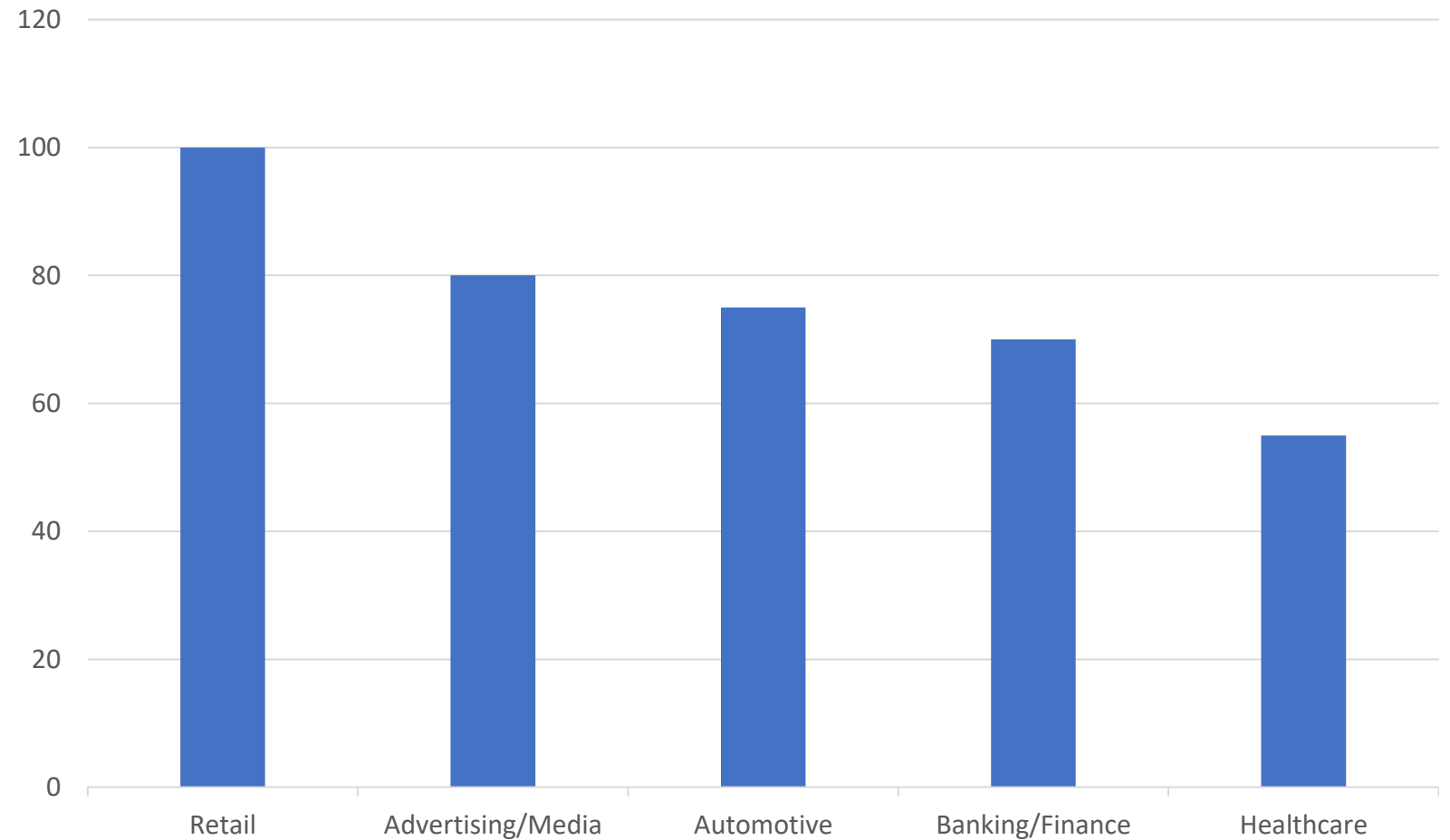
BI STATISTICS (2/2)



TOP 5 INDUSTRIES USING BI

BI Market revenue by 2028:

43 billions \$



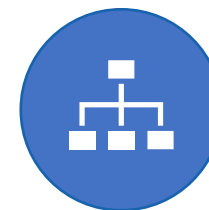
KEY DRIVERS



use analytics to develop products and services



Business understand the importance of trusted data



Data analysts are pushing new BI products with discovery capabilities



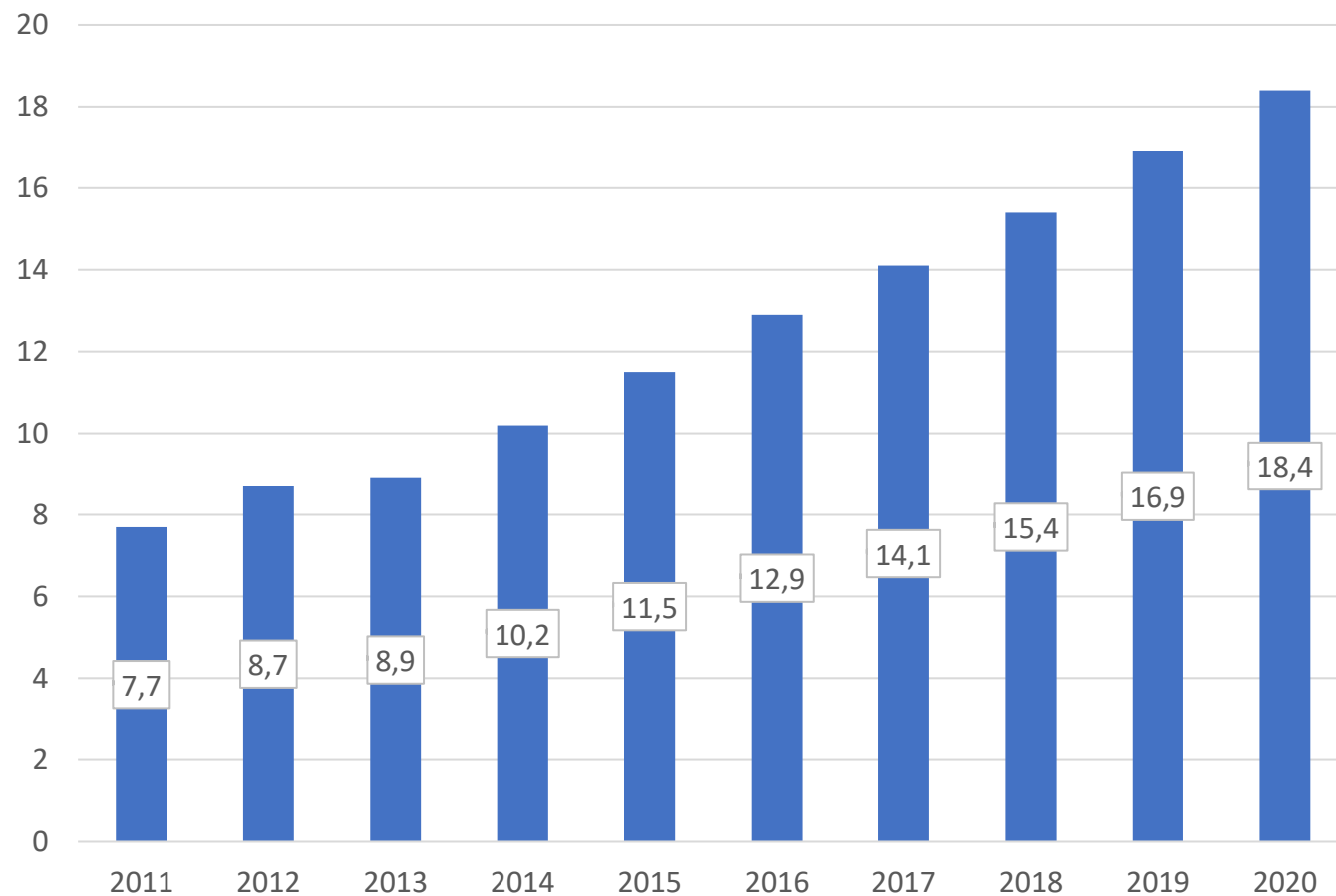
Organizations want a single platform where combines data from different applications (single point of truth)



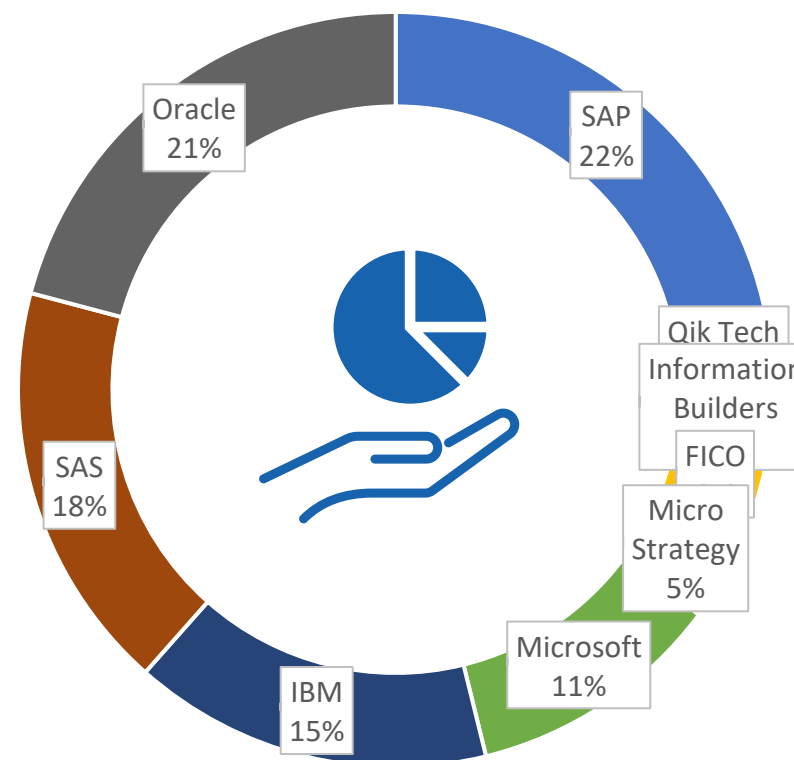
Embed and extend analytics contents to drive business decisions

BI MARKET SIZE

Market size by Year



Market size by Top Vendor



ARCHITECTURAL FRAMEWORK

- Information Architecture
- Data Architecture

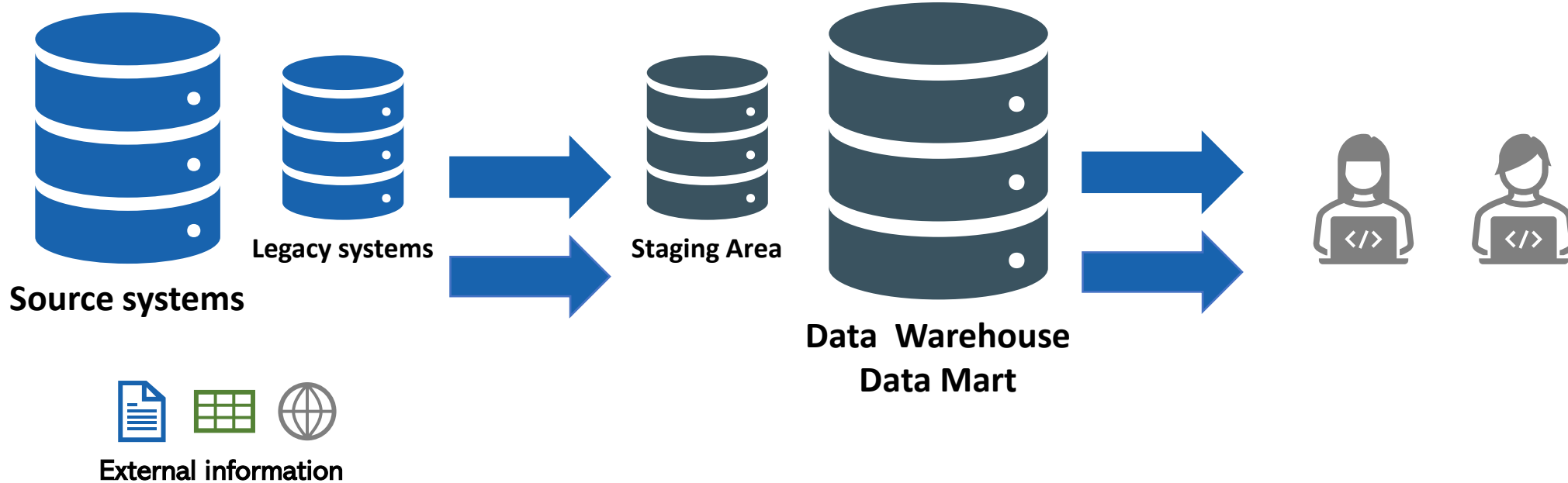


INFORMATION ARCHITECTURE

OLTP Process - Transactional

Data Warehousing

OLAP Process



DATA ARCHITECTURE AND TECHNOLOGY

Data Sources



External information



ERP, Managerial
(SAP Business One,
Oracle NetSuite,
Salesforce, etc...)

Data Movement

Data
Extraction

Data
Quality

Data
integration



**ETL (Extract,
Transform, Load)**
*Talend,
Informatica PowerCenter,
Theobald*

Data Warehouse Servers



**Relational
Database**
(SAP HANA, Oracle,
IBM DB2)

Front end app



Dashboard
(Tableau Desktop,
Power BI, Qlik Sense)



Ad hoc query
(Cloudera Hue, etc)

Front end Servers



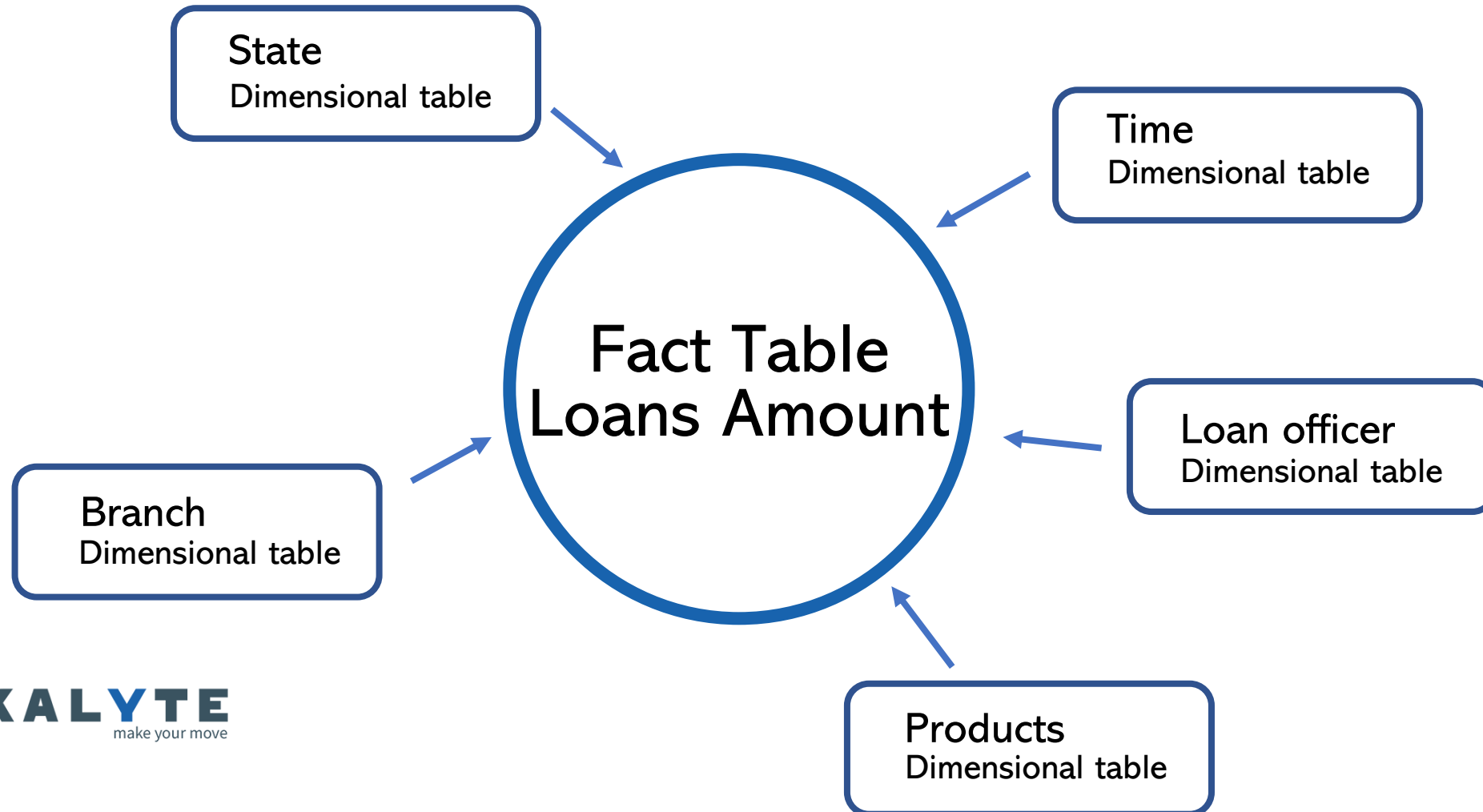
**Reporting
Server**
(Tableau Server,
Webi Business Object,
PBI Server)

DATA DESIGN

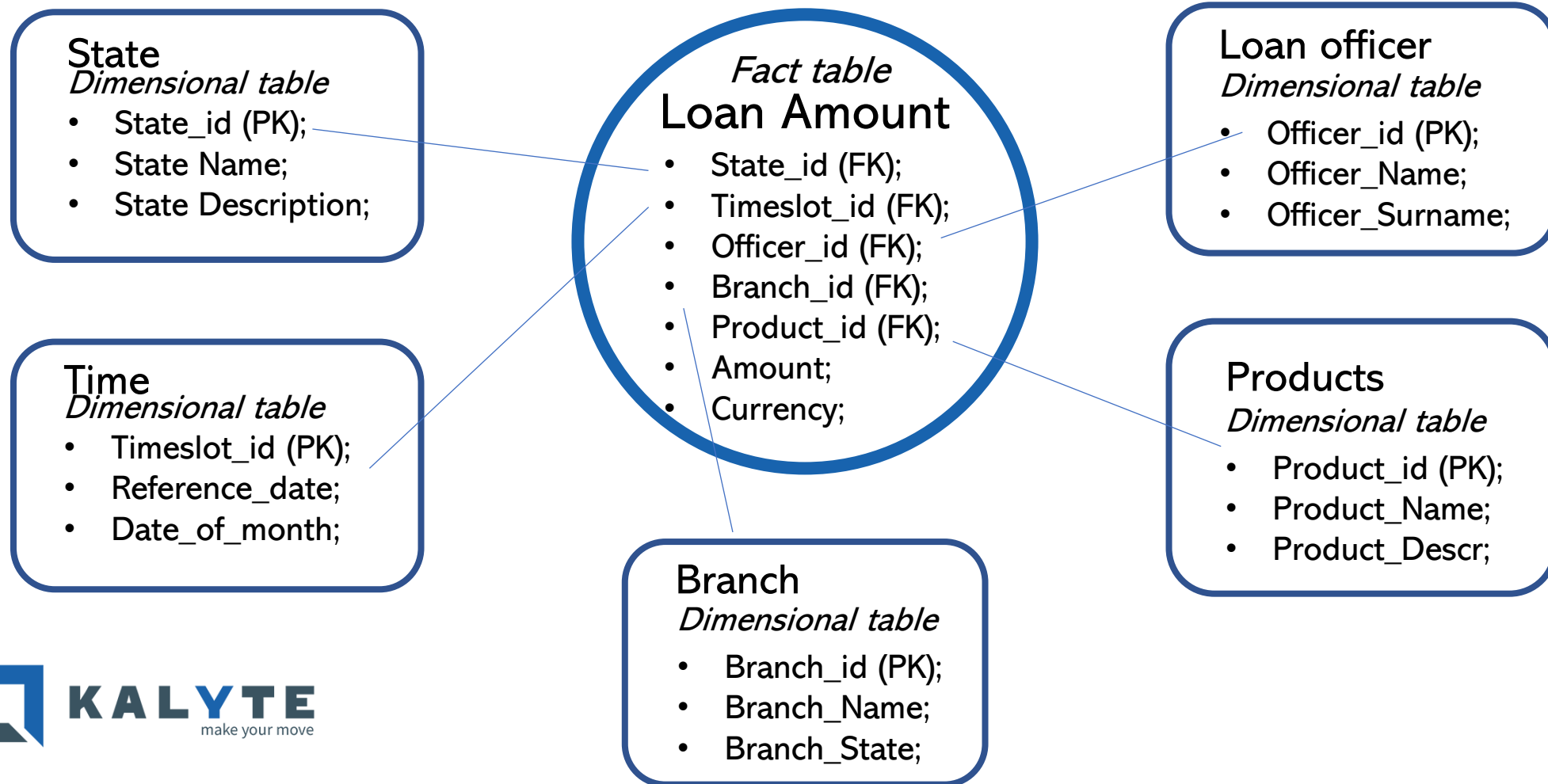
- Dimensional Modelling



DIMENSIONAL MODEL (1/2)



DIMENSIONAL MODEL (2/2)



BUSINESS INTELLIGENCE DESIGN

- Business Intelligence Applications
- BI Design & Development
- Advanced Analytics



BUSINESS INTELLIGENCE APPLICATIONS



Reporting
(Excel, csv, etc...)



Querying software
(like Hue for Impala environment)

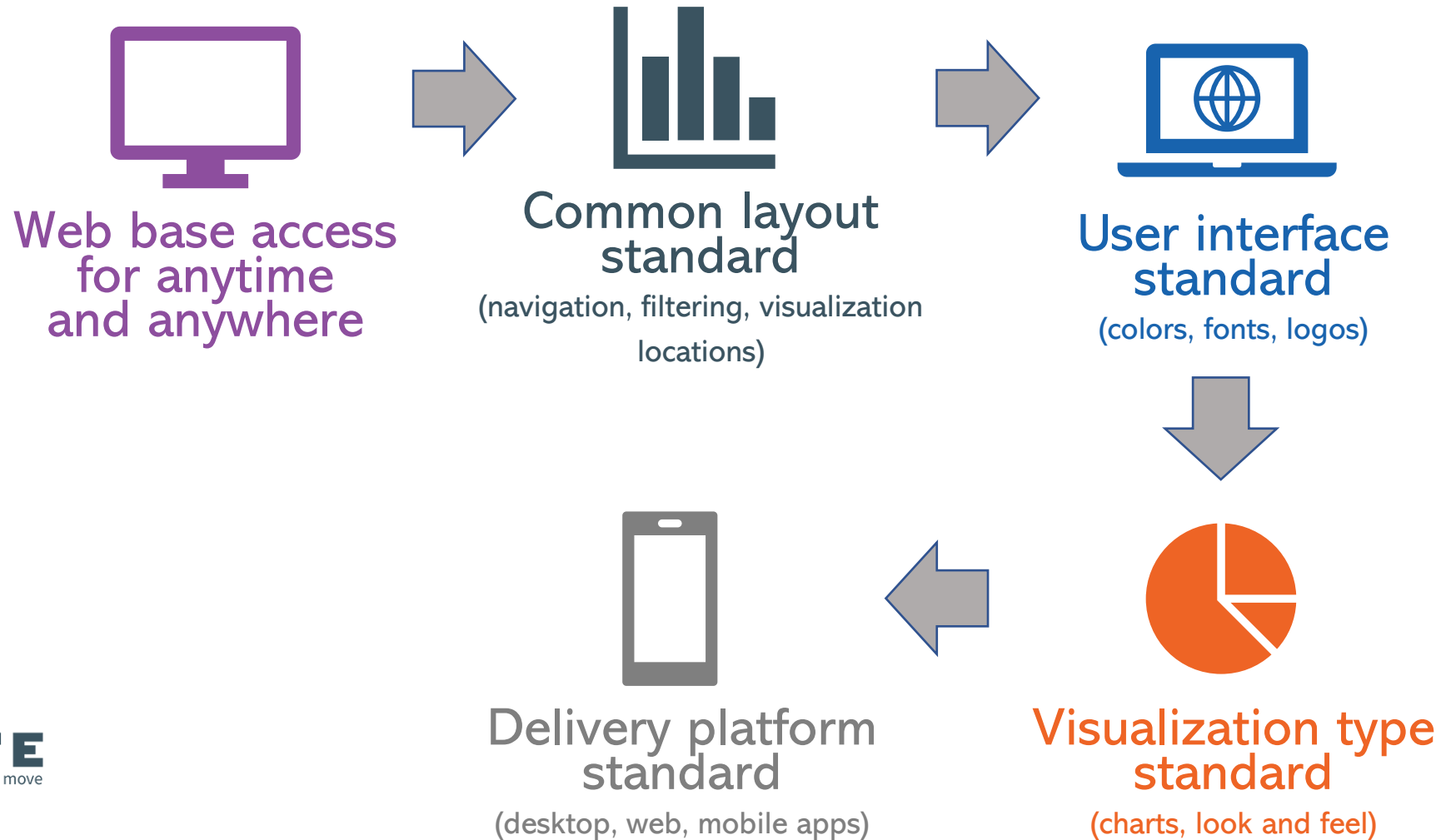


Digital Dashboard
(Tableau, Power Bi, Qlik Sense, etc...)



Data Mining
(R, Rapid Miner, Python, Knime, etc...)

BI DESIGN & DEVELOPMENT



ADVANCED ANALYTICS TECHNIQUES



Descriptive Analytics

It looks backward to understand what happened.
It is focus on the past.



Predictive Analytics

It uses statistical models and other methods to predict what might happened based on previous events. These Analytics use data mining and machine learning methods. Based on past events it would predict future situations.

BUSINESS INTELLIGENCE KPI & DASHBOARD

- KPI Metrics
- KPI Dashboard

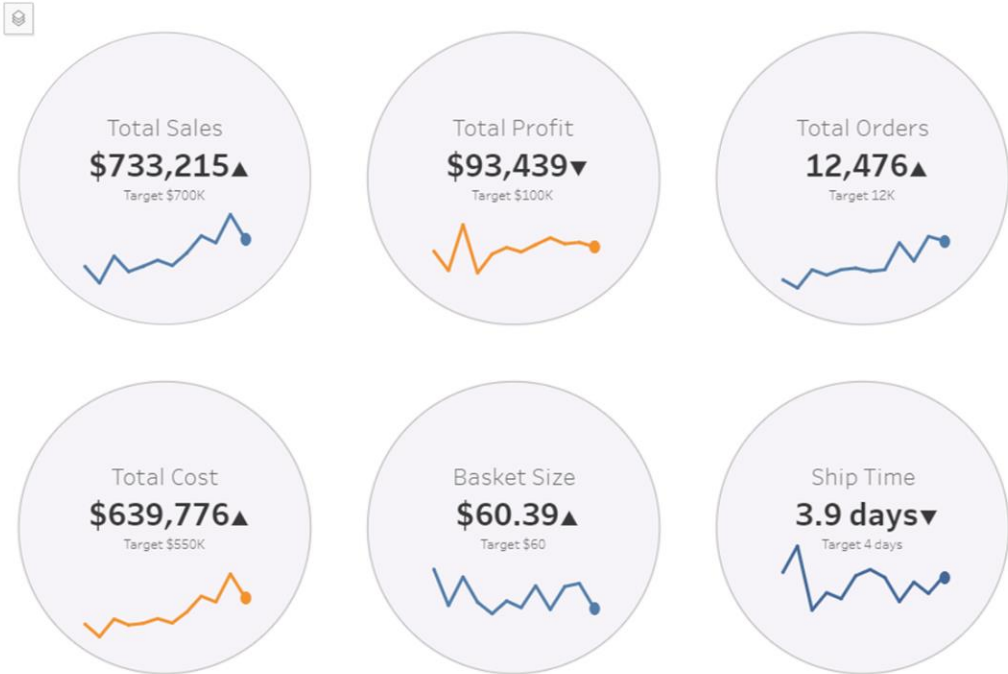


KPI METRICS

2020 SuperStore Executive KPI Dashboard

January 1, 2020 to December 31, 2020

Select Year
2020
Profit Target
\$100,000



DoingData

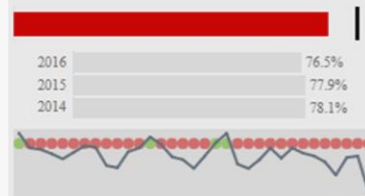
DC Metro ScoreCard
September 2016



Bus On-Time Performance

72.4%

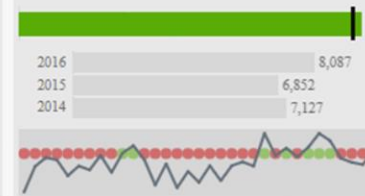
vs 79.0%



Bus Fleet Reliability

8,231

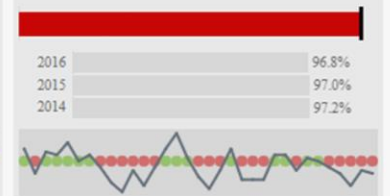
vs 8,000



Elevator Reliability

96.6%

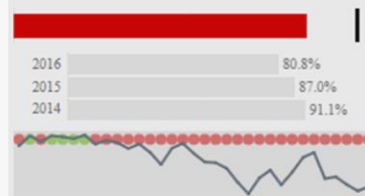
vs 97.0%



Rail On-Time Performance

77.6%

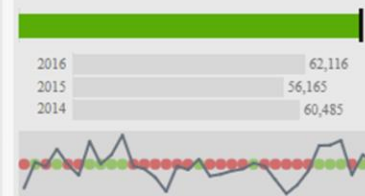
vs 91.0%



Rail Fleet Reliability

65,416

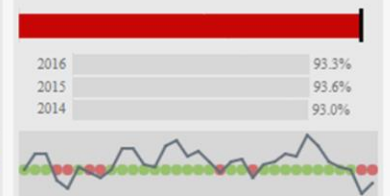
vs 65,000



Escalator Reliability

92.5%

vs 93.0%



KPI DASHBOARD

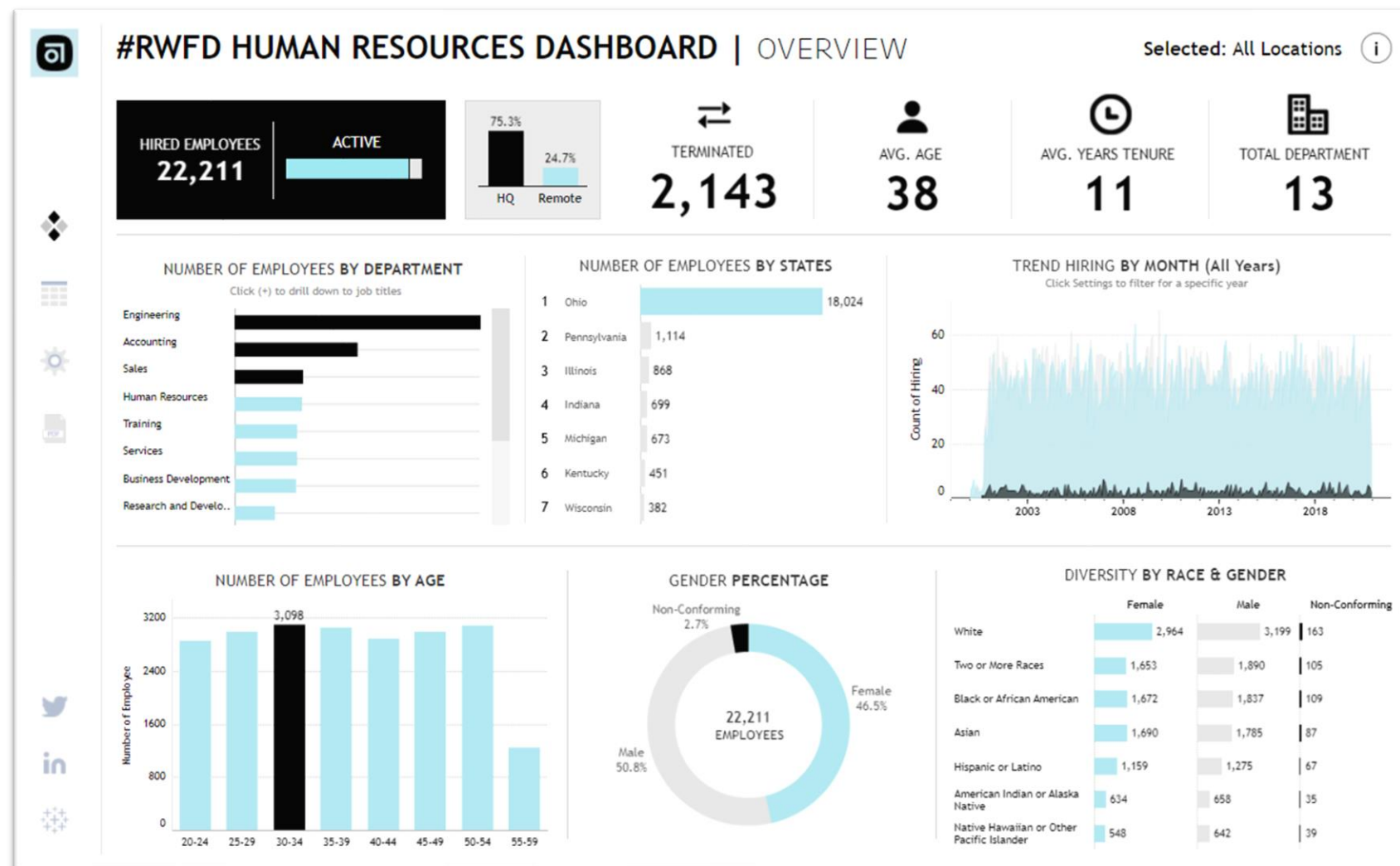


TABLEAU FOR THE DATA VISUALIZATION

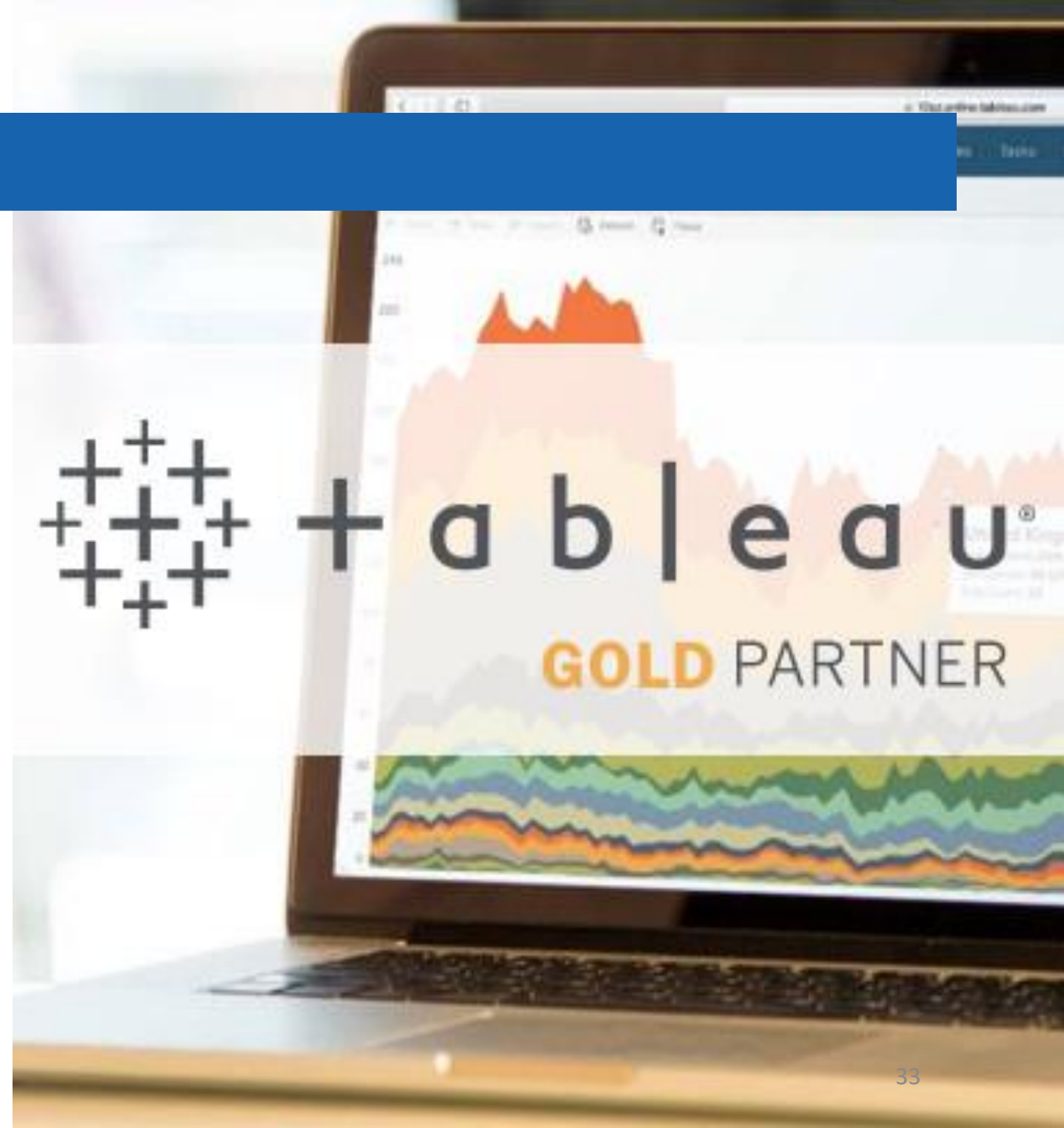
- Know Tableau environment (fundamentals);
- Understand Tableau Dashboard;
- Create Tableau Dashboard.



ABOUT TABLEAU

What is Tableau?

Tableau is a Business Intelligence tool used for Data Visualization. Its target is show the statistics developot on the database. The target of its creators is make Tableau the definitive choice for the SELF SERVICE REPORTING.

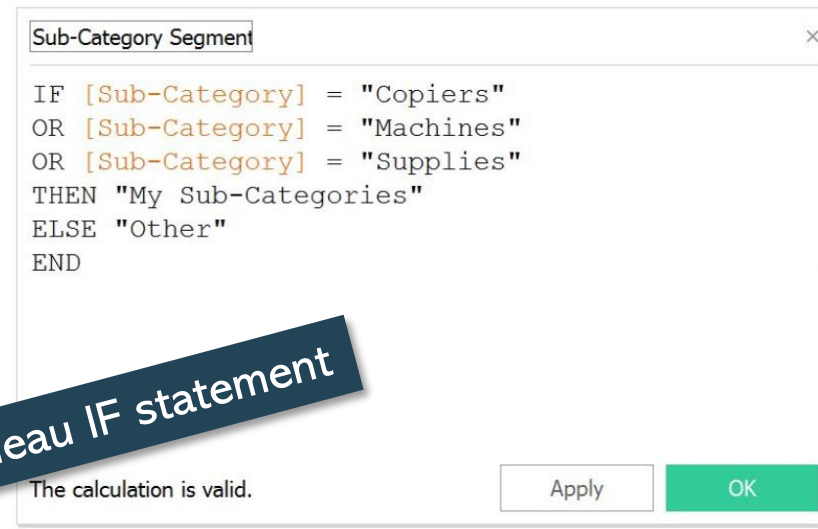


ABOUT TABLEAU

The programming language that use Tableau is SQL (structured query language)

Definition

Sql is a programming language to query a database. Furthermore is possible read, modify and delete data.



ABOUT TABLEAU

Find inspiration!

If you want to find some inspiration about Tableau, you can navigate on Tableau Public (<https://public.tableau.com/en-us/s/>) the world community of Tableau users.



ABOUT TABLEAU

Download Tableau

Student License (free for 1 year)

<https://www.tableau.com/academic/students>

and open it!



KALYTE
make your move

CONTATTI

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