

# Integrating Big Data for Success

CAB Conference, Sonesta Maho Resort, Sint Maarten

**30 October 2019 – 2 November 2019**





# Agenda

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1

How Big Data works

2

What is Big Data for banks?

3

How do we make it happen?

4

Models of governance and management



When you think of analytics, what comes to mind?

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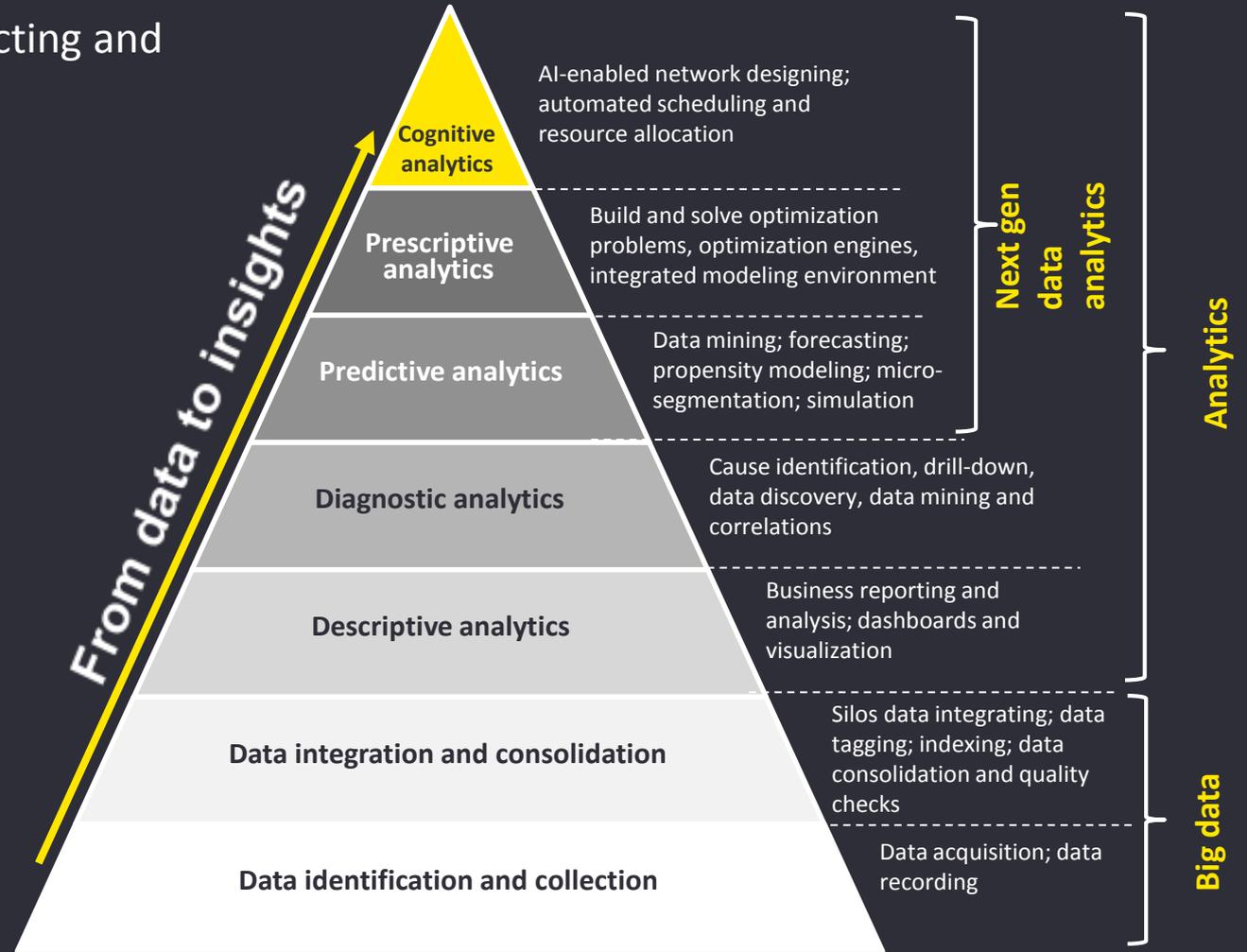
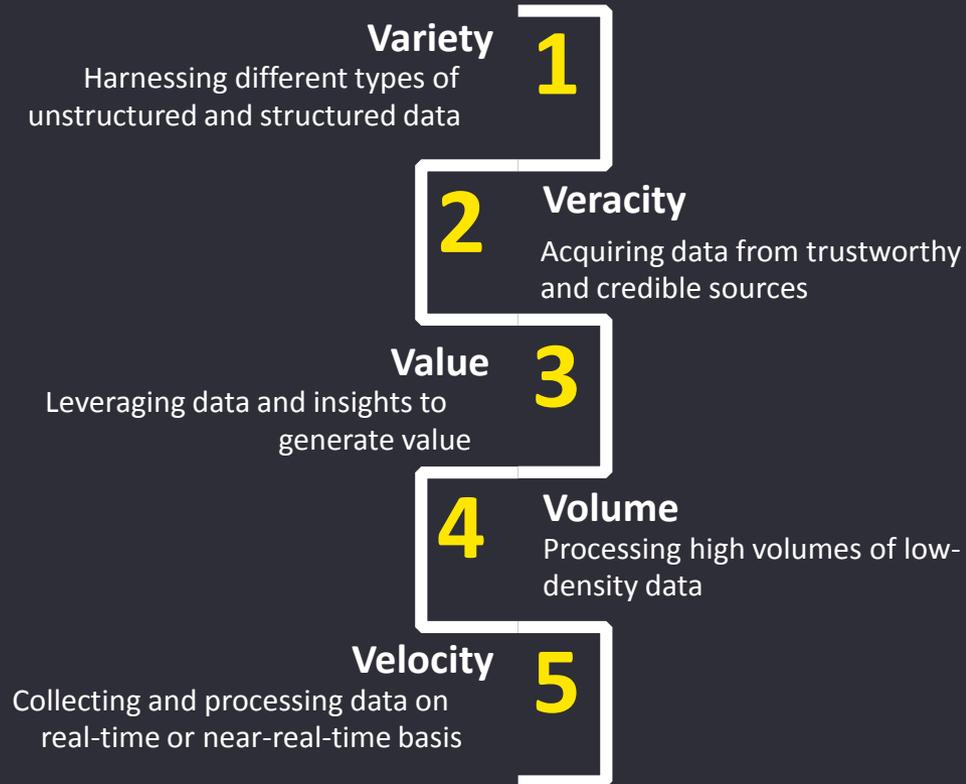
EY

# What comes to mind when you think of Big Data?

# Understanding big data and analytics

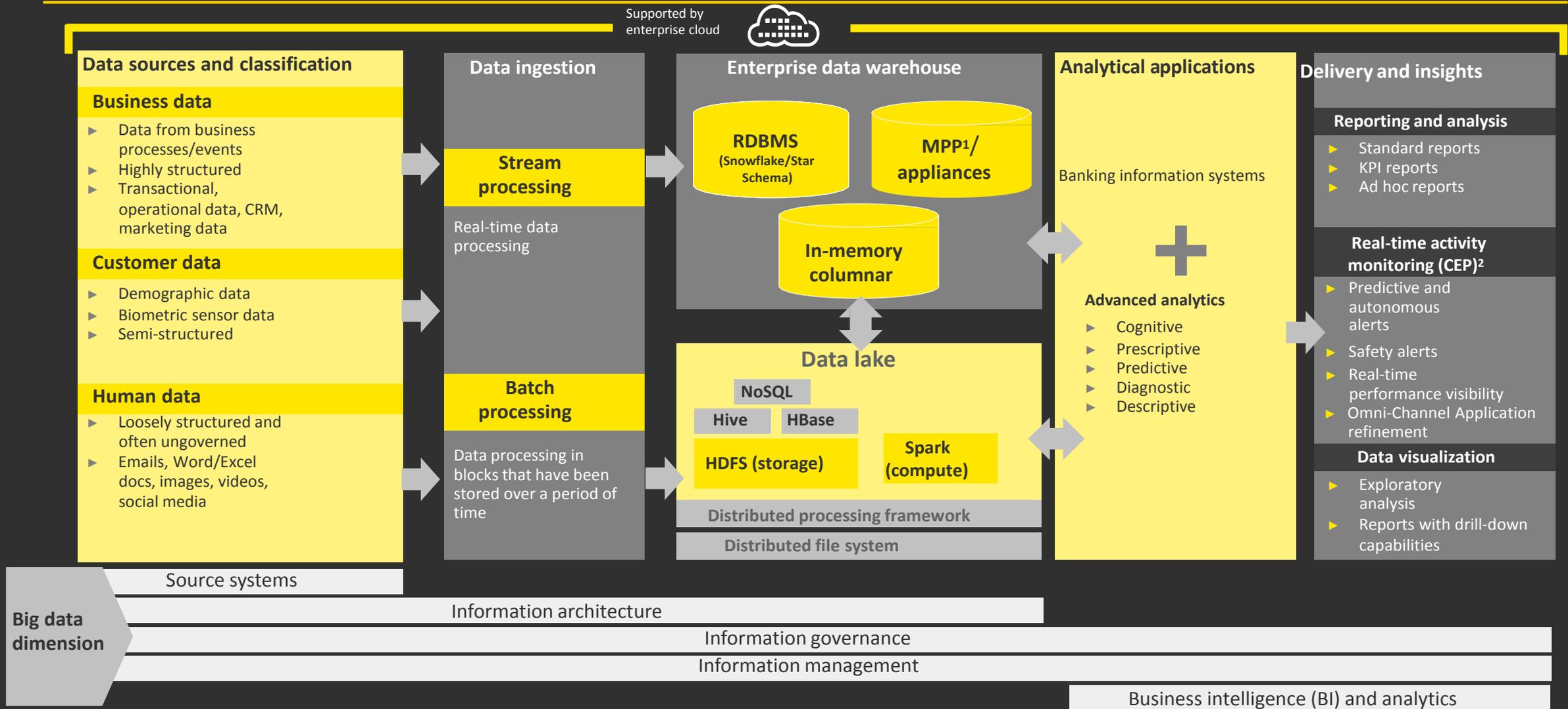
Big data and analytics have evolved from merely collecting and reporting data, to generating actionable insights.

## Characteristics: The five 'V's of big data



# How big data works

Transformation of big data starts from collection of right data sets, then creation of a data lake, followed by analysis to solve business problems and derive insights



<sup>1</sup> Massively parallel processing

<sup>2</sup> Complex event processing

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# Main drivers to embrace this transformation

## 1 The use of information is a necessity

- ▶ The business itself is changing and banks have to change with it
- ▶ This is BI at its best, an old game with new tokens

Big Data with predictive and reductive analytics with strong tools on visualization is the holy grail of BI

## 2 You need information mastering

- ▶ Better management of complexity
- ▶ Standardization of procedures and metrics, i.e. simplicity into complexity
- ▶ Self knowledge
- ▶ Effective use of this complexity into the business

## 3 Big data will help you to better deal with key problems

Critical problems a bank has to face

- ▶ Low returns
- ▶ Regulatory demands
- ▶ Channel proliferation
- ▶ System fragmentation
- ▶ Geographic expansion
- ▶ Product proliferation
- ▶ 360° Client view
- ▶ Responds to shadow banking

Analyzing present and past



Forecasting for future actions

# Key insights

As evidenced through a number of survey results, including the EY-Forbes Insights survey and the EY Global Banking Outlook 2018\*, data and analytics continues to represent opportunities for banks to optimize their growth agenda:



Banks currently invest and will increase investing in data and analytics over the next three years



Banks prioritize cyber security and data security



Banks develop data and analytics technology in house



Banks expect rising technology budgets to have positive impact on IT

*\*The EY 2018 Global Banking Outlook study is inclusive of both Consumer and Commercial Banking insights*



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How do you rate your organization's Strategy and Culture toward Big Data Analytics?

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# How do you rate your organization's Strategy and Culture toward Big Data Analytics?

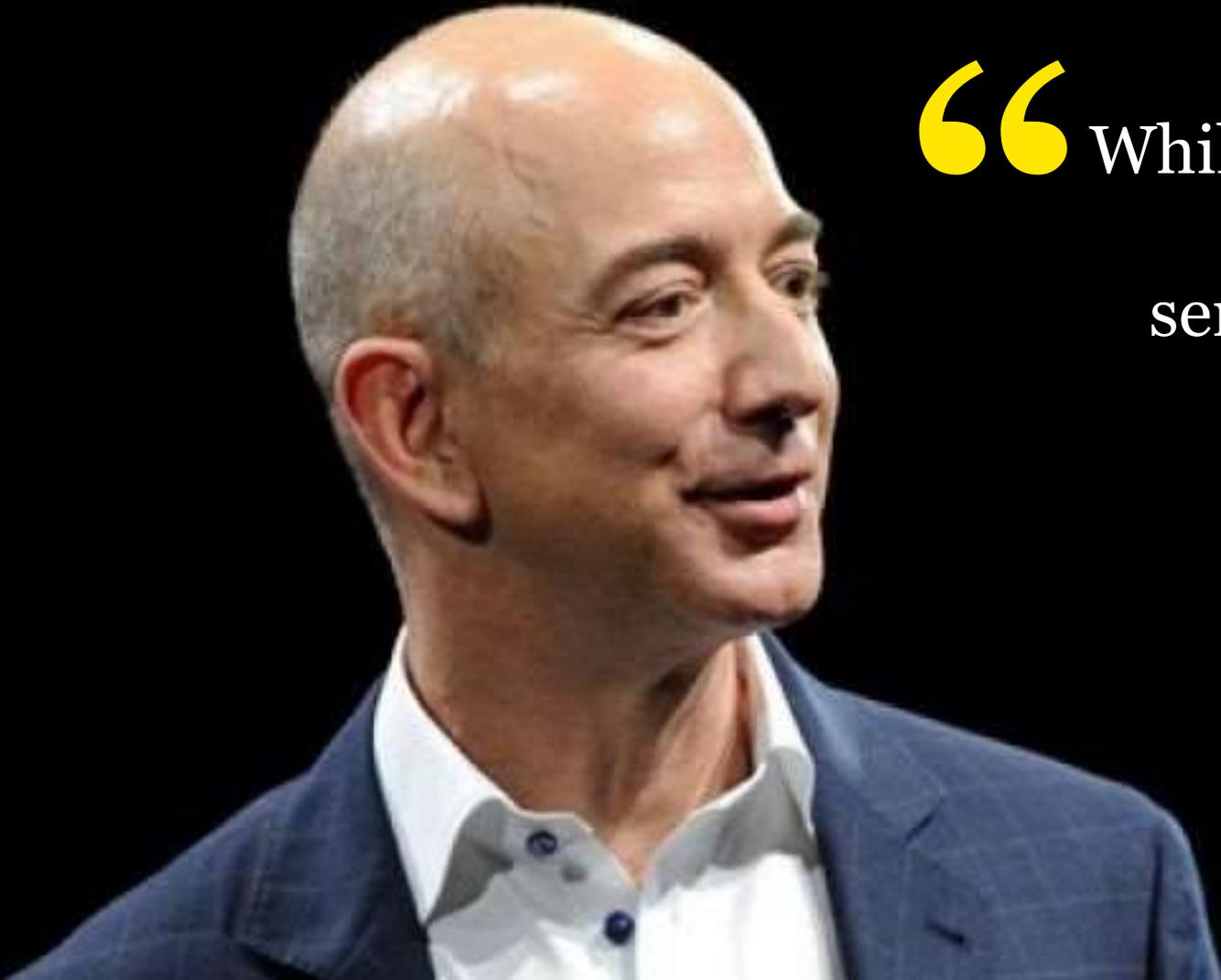
Basic

Developing

Established

Advanced

Leading



“ While conventional wisdom has held that customer service is Amazon’s secret sauce, Bezos’s core innovation was to place data at the center of his corporate culture.

**David Selinger,  
Former Google employee.**

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# How do we start?

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## 1 Find your place in the “landscape” of the BD era

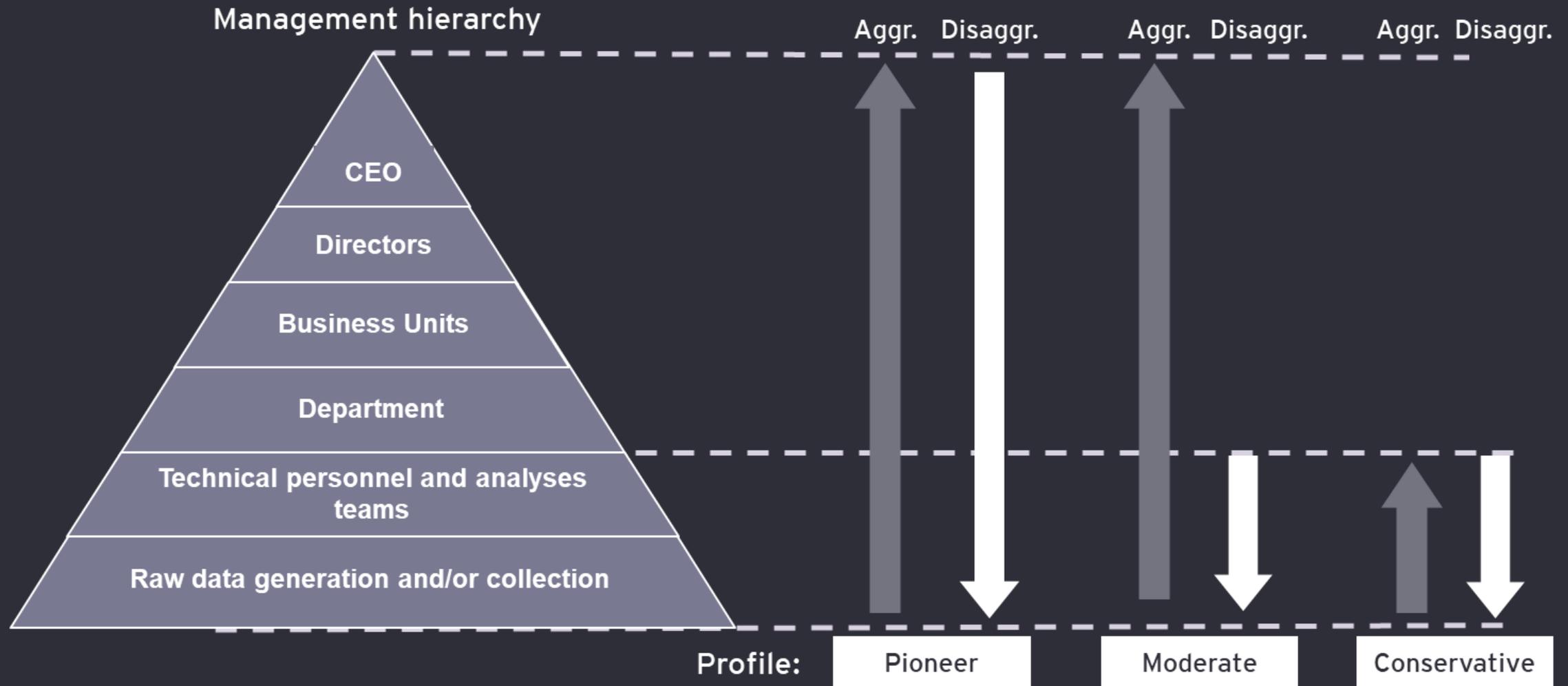
- ▶ What is your approach to Big Data integration into the business?
- ▶ Do you want to lead the market on BD, stay as regular user, or rather be modest?
- ▶ How long is your time to deployment?

## 2 Identify a set of metrics to track your location in this “landscape”

- ▶ There are different metrics to measure the level of implication in the BD era:
  - ▶ The usual approach is to focus on technological development
  - ▶ An excel approach is to focus on delivery power 

**Keep in mind where do you want to be in 5-10 years from now...**

# Aggregation/Disaggregation as a measure of BD integration



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How would you rate your organization with respect to skills and architecture to handle Big Data?

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# How would you rate your organization with respect to skills and architecture to handle Big Data?

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# Model for Big Data Governance

**1** We believe that there should be an “**Information Department**” (ID) to deal with the information sent, received and storage across the Bank.

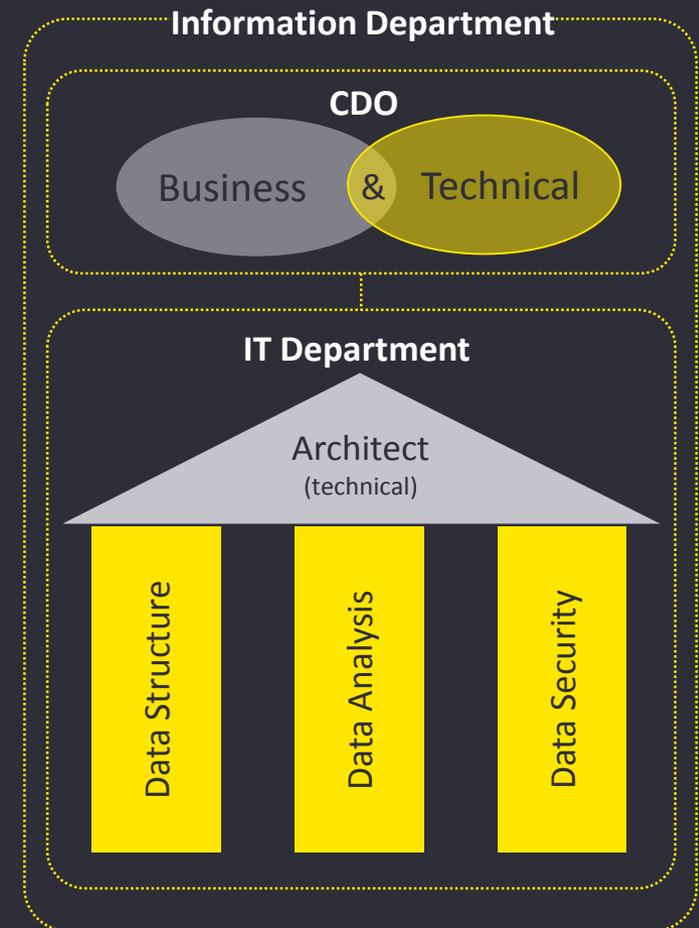
The ID should contain the IT department and deal with the following:

- ▶ Define the architecture of the data storage (Relational, non relational, SQL, etc.)
- ▶ Take care for collection, storage and maintenance of Data (Usual data & Big Data)
- ▶ Define the use of in-house Data and/or use of cloud services
- ▶ Define the different protocols to interact with this data (retrieving, wring, displaying, etc.)
- ▶ Set the framework for the analytic layers that act on the data (Oracle, Hadoop, etc.)
- ▶ Define the set of tools used across the Bank for data analysis (SAS, R, Python, etc.)
- ▶ Provide consulting services on data use across the different departments of the Bank
- ▶ Define, maintain and follow the security of the whole information network

**2** The **Chief Data Officer (CDO)** should have a mixed profile with strong business awareness as well as technical skills

The CDO should be able to perform the following task:

- ▶ Be well aware of the business necessities of information of the Bank
- ▶ Understand the long term as well as the short term vision of the Bank
- ▶ Understand the structure of the different Databases in the Bank
- ▶ Master the analytics layers
- ▶ Understand the web of information spanned across the Bank



# Where do we place the ID department into the Bank Management hierarchy?

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# 1

## Minimal solution

Identifies key structural necessities for banks regardless of its internal IT development, whether or not they possess an internal warehouse and/or have BD usage.

# 2

## Standard solution

Goes one step further and promotes the role of ID to the Board, where the interaction between the CDO and the highest level of direction in the Bank takes place. Here, ID is recognized as a key department of the business that needs to be boosted across the whole Bank.

# 3

## Advanced solution

The **Advanced solution** is characterized by the inclusion of the ID as a full-fledged division of the Bank at the same level of Business, Operations and Financial. This time BI and its materialization with BD analysis form a consolidated part in the day-to-day running of the Bank's business.

# Thank you

