



# Towards a Data-Driven Culture

Promote Analytics  
Maturity with  
Scorecards

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**Align** information management practices and processes to **improve** business decisions

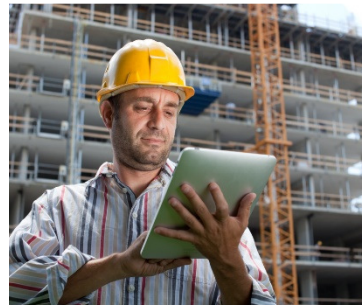
# Agenda



Keys to a Data Driven Culture



Utilizing Analytics



Performing Assessments

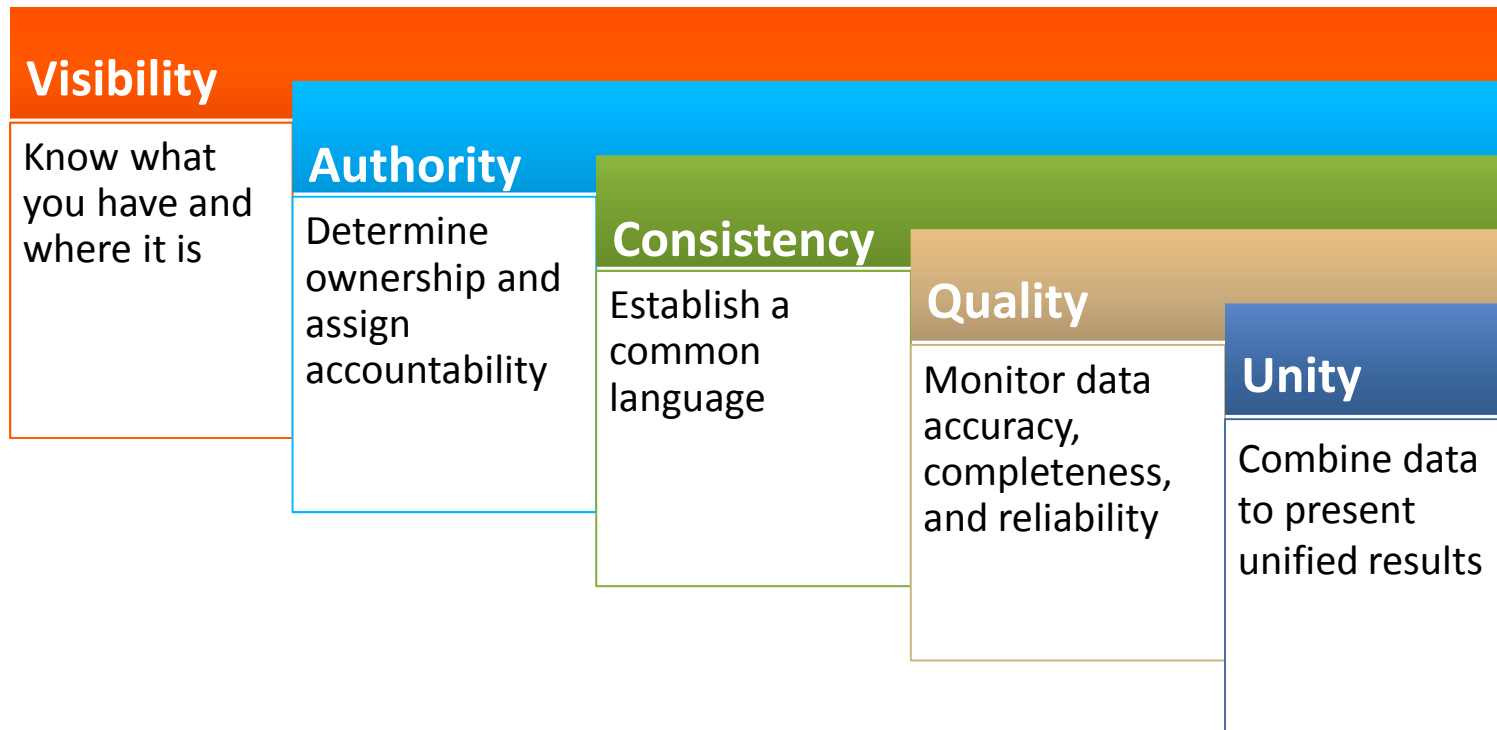


Developing Scorecards

# Characteristics of a *Data-Driven* Culture

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# Keys to a *Data-Driven* Culture



# Visibility

## Know what you have and where it is

- What data do you need to support your business goals?
- When is the data captured? Are there different stages in the journey?
- Where is it stored? Is it all in one system, or do multiple, disparate systems collect and manage a wide variety of data?

# Authority

## Determine ownership and assign accountability

- Do different departments “own” the data at different stages of its journey?
- Is some of the data common and essential to all areas of an organization?
- Who is responsible for owning and managing the data?
- Who is responsible for the infrastructure that houses the data?



# Consistency

## Establish a common language

- Do the systems holding the data speak different languages?
  - Depending on system restrictions, storage formats and data entry standards, a persons name could appear as J. Smith, John Smith, or John T. Smith
- Is the data called the same thing in each system or area?
- Can the data owners agree upon consistent definitions of data across various lines of business and processes?



# Quality

## Monitor data accuracy, completeness, and reliability

- How quickly does your data quality erode?
  - Customers may move, change their names, or reach new life stages
  - Employees may make mistakes when entering customer information
- What processes can you put in place to monitor data accuracy, completeness, and reliability?
  - Who knows what the data should look like
  - Who can fix it when it's wrong?

# Unity

## Combine data to present unified results

- With better visibility, authority, consistency and quality
  - What new connections can you make between data?
  - What new insights will you gain from these connections?

# Example: Customer Data

- Where is customer data stored today?

Visibility

- Who owns and has authority over each instance of “customer”?

Authority

- How do we know it is the same customer?

Consistency

- Is one instance of “customer” more current than another?

Quality

- What could you do with the data if it were more connected?

Unity

# Improve Guest Experience

## Harrah's Loyalty Card Program

Gathers historical gaming behaviors and preferences

Predicts a guest's theoretical worth and lifetime value

Tracks and responds to real-time behavior

Stages strategic interventions during real-time play

Induces people to play longer and spend more money



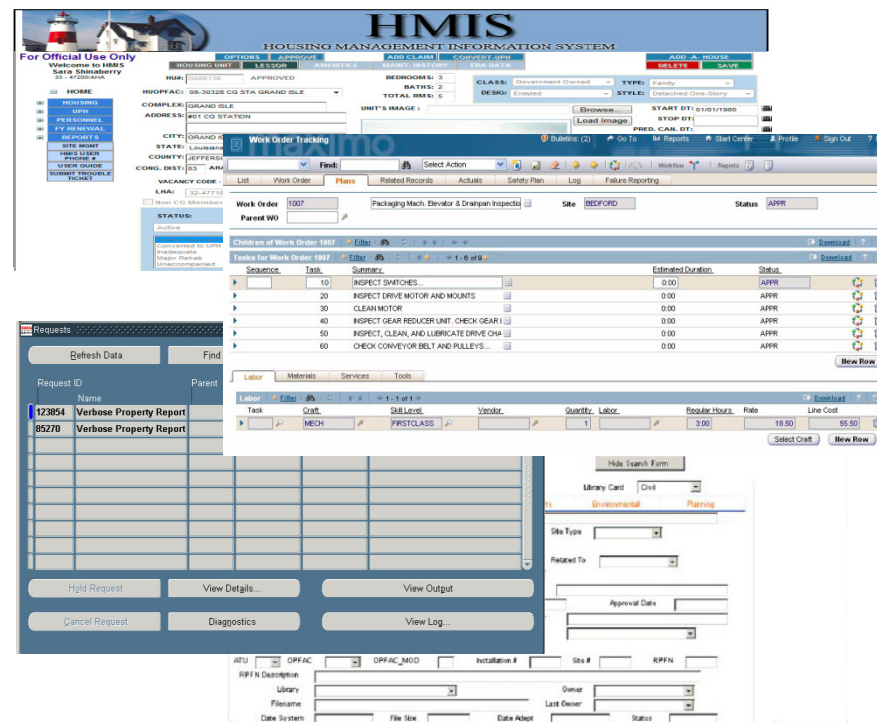
# Total Asset Visibility

United States Coast Guard Housing



## The Need

- Didn't know what they had - who was in it - and whether it was in compliance
- USCG needed better visibility into their housing assets – a unified view



# Example: Housing Asset Data

- Where is tenant data stored today?
- Where is asset data stored?

Visibility

- Who creates tenant and asset data?

Authority

- Building or Unit or Street Address?

Consistency

- Are there missing records? Duplicate records?

Quality

- Could tie asset depreciation to maintenance costs to occupancy

Unity



# Total Asset Visibility

## United States Coast Guard Housing

### The Solution

- A cleansing program for existing systems for relevant data
- Established rules, roles, and processes to unify and govern the data
- Established authoritative systems and global asset identifier
- Integrated information from three existing systems



Project #	Title	Description	Status	Cost	Exec FY	Uniformat	Type
(B135_3820)	QTRS A-DUPLEX						
	Renovate Kitchens	Replace Kitchens in 6 units	WAPPR	\$58,900.00	2017	C10	N
	Replace Carpet	Replace Carpet in 8 units	WAPPR	\$32,000.00	2014	C10	N
	Replace Doors	Replace Interior Doors in 8 units	WAPPR	\$12,000.00	2015	C10	N

Site	Building(s)	Projects (SDT)	Action
	30 JEWEL CT	Projects (SDT)	Go to this building
	36 JEWEL CT	Projects (SDT)	Go to this building
	1025 SW PINE	Projects (SDT)	Go to this building
	1035 SW PINE	Projects (SDT)	Go to this building
	1045 SW PINE	Projects (SDT)	Go to this building
	217 SOUTH PT	Projects (SDT)	Go to this building
	230 SOUTH PT	Projects (SDT)	Go to this building

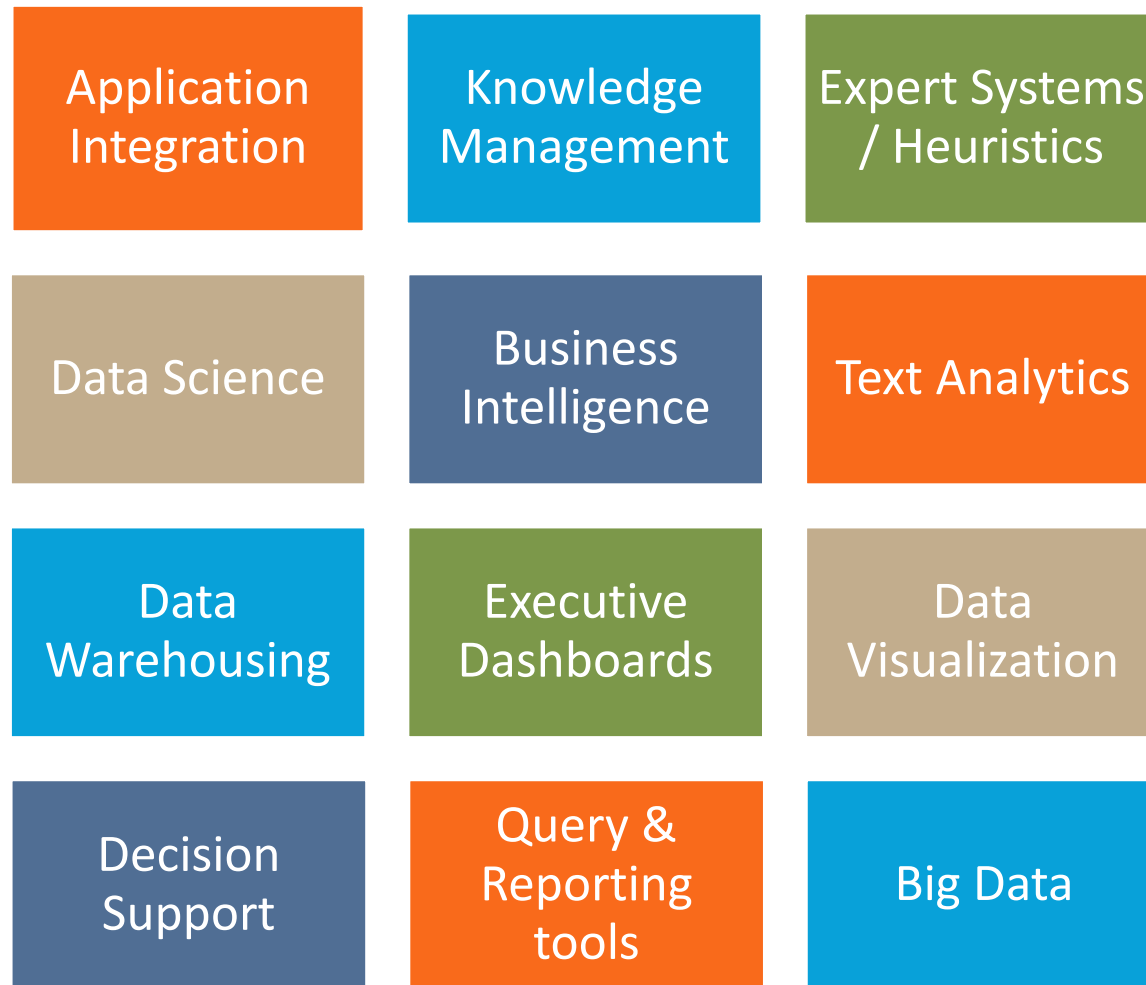




Data analytics (DA) is the science of using **metrics** and **models** to help you **analyze** and **improve** what you do

# Terms + Technology = Confusion

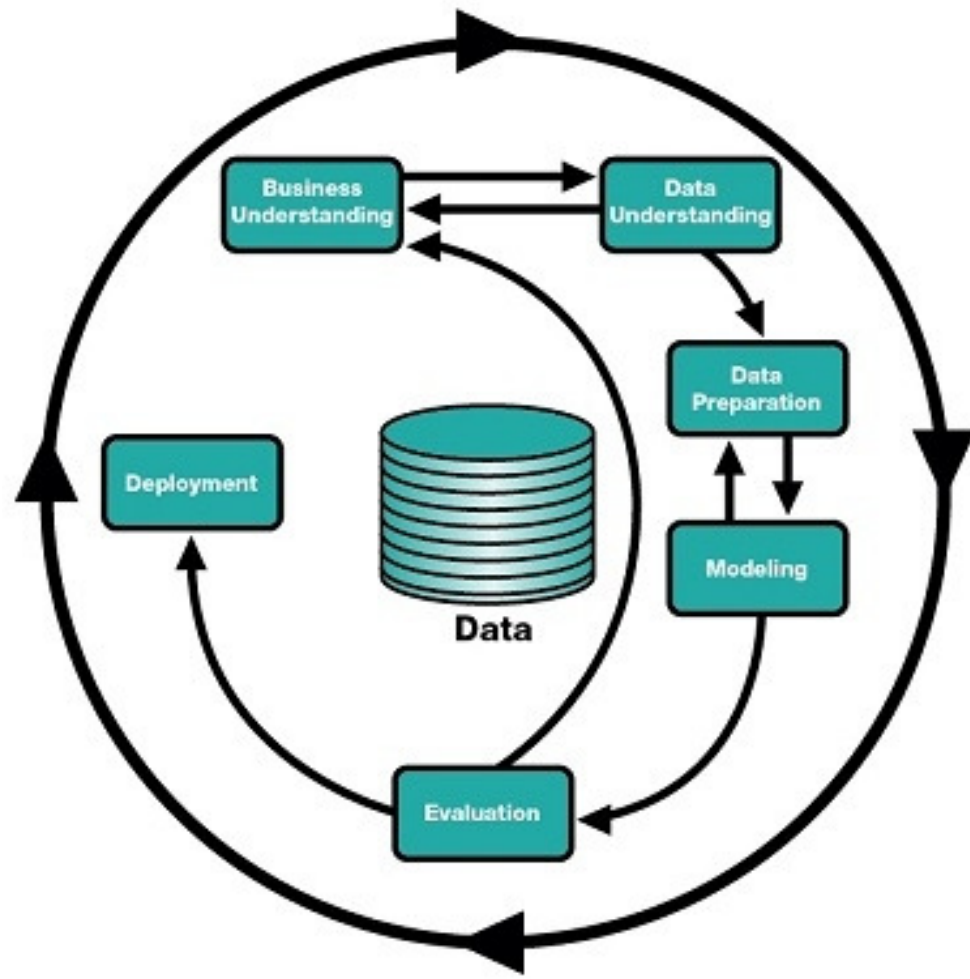
## Analytics



# The Iterative Cycle of Data Mining

## Cross Industry Process Model for Data Mining (CRISP-DM)

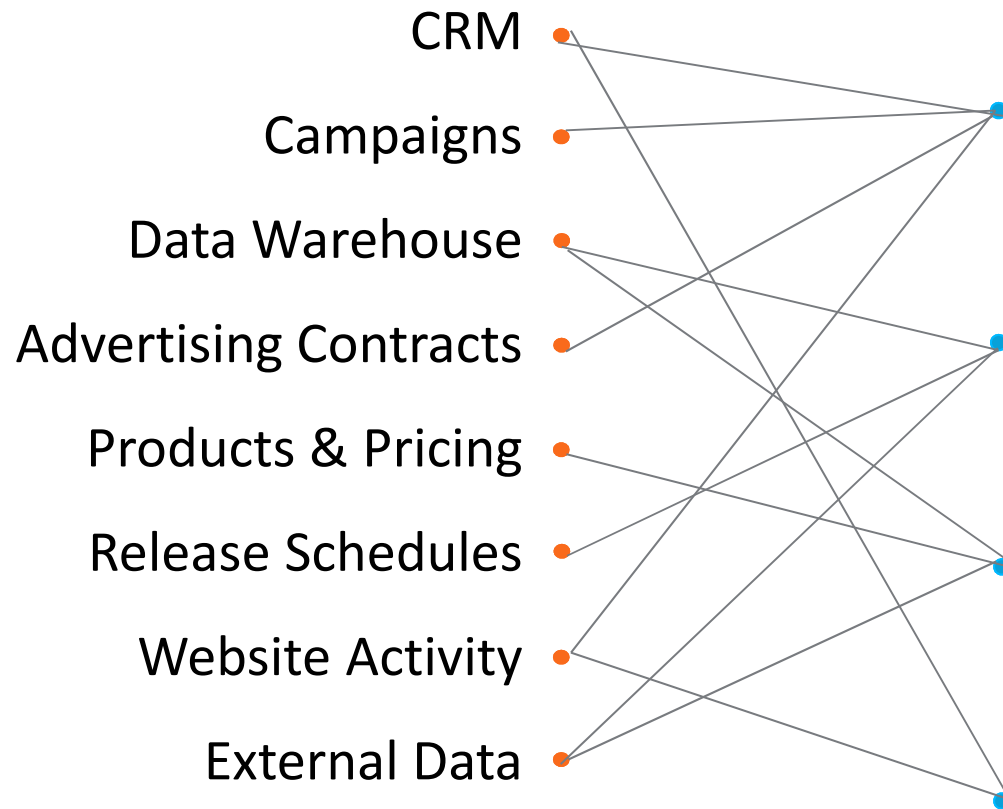
- Established in 1999
- Over 300 organizations contributed to the process model



<https://www.the-modeling-agency.com/crisp-dm.pdf> 18

# Example: Marketing

## Data Sources



## Analytics

Customer Acquisition Cost

Market Share Forecast

Product Mix Recommendations

Survey & Customer Feedback Analysis



# Your poll will show here

1

Install the app from  
[pollev.com/app](http://pollev.com/app)

2

Make sure you are in  
Slide Show mode

Still not working? Get help at [pollev.com/app/help](http://pollev.com/app/help)

or

[Open poll in your web browser](#)





# Assessment Participants

- Who is interested
  - Stakeholders – people in need of better information and analysis
  - SMEs – people who know where the data is, and how to get it
  - Stewards – people responsible for the usability of data
- Identify others
  - Hoarders (but in a good way) of information
  - Hubs of data sharing
  - Hackers (or ‘self-directed coding enthusiasts’) can help



# Typical Assessment Activities

- Catalog Current Reports
- Interviews with stakeholders
- Technical assessment of data repositories and processes
- Reverse engineer code where necessary
- Create Analytics Profile document for analytic metadata

# Analytics Profile

Produce a simple, one-page document containing metadata:

- Report Owner (person or group)
- Business value
- Location or means of access (e.g. dashboard, portal)
- Date of last modification
- Tool or software
- Data source(s) utilized
- Business rules (such as data filters)
- Process metrics
- Calculations
- Recommendations for technical process improvement

# Map Report Metadata to Culture Characteristics

- Location or means of access
- Data source(s)

Visibility

- Report owner
- Process metrics

Authority

- Business rules
- Calculations

Consistency

- Date of last modification
- Technical recommendations

Quality

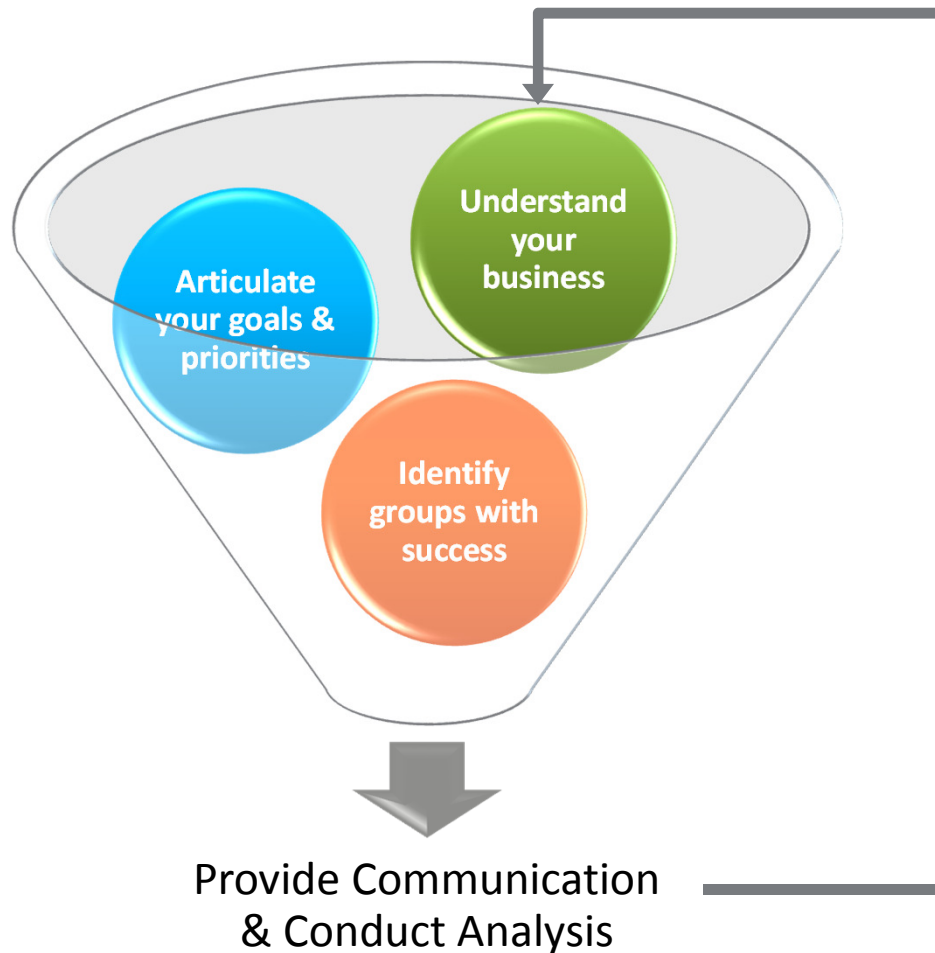
- Business value
- Software or tool

Unity

# Build Scorecards



# Leveraging Scorecards



**Replicate activities that support a data-driven culture**

# Scorecard Value Proposition

- Business Drivers
  - Disappointing ROI for Analytics
  - Strategic Uncertainty
  - Changes to Organization or Systems
- Desired Outcomes
  - Alignment of Analytics and Business Processes
  - Prioritize Development Initiatives
  - Engage Available Tools and Resources

# Scorecards: Priorities

- Compliance
- Risk
- Operational efficiency
- Product development and delivery
- Customer / Market insight
- Others?



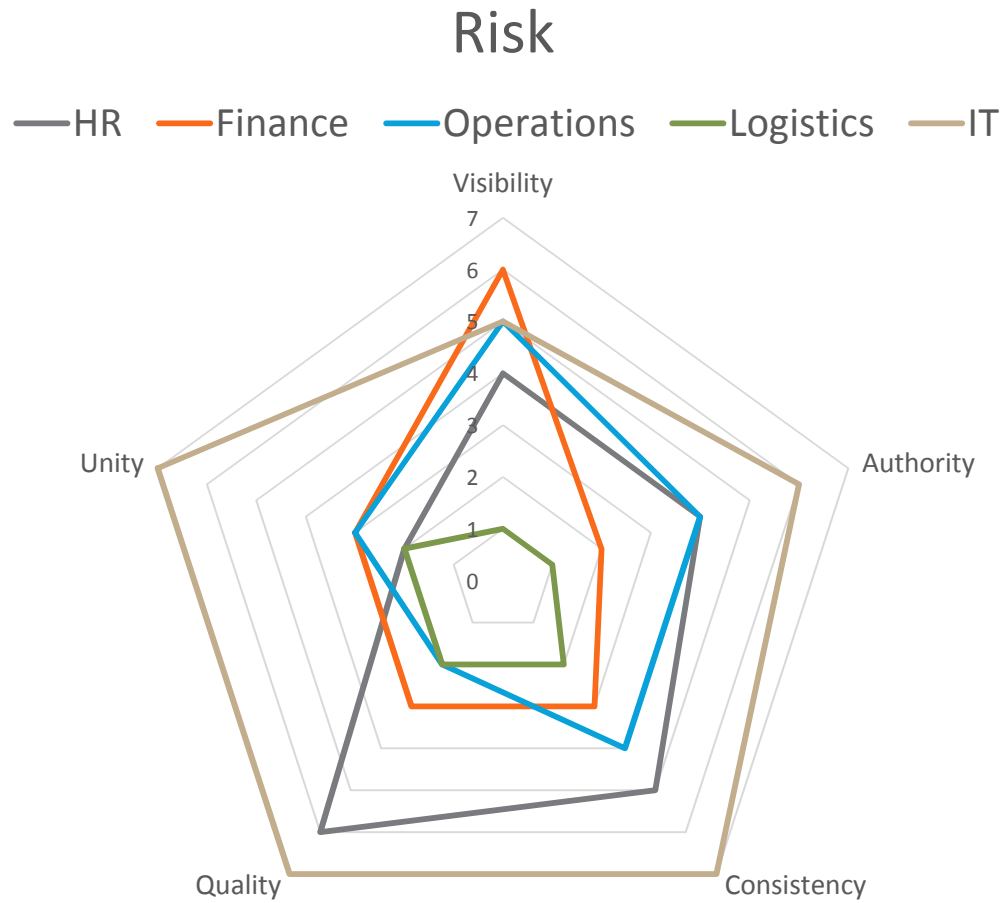
# Scorecards: Visualization by Function

## Finance Example

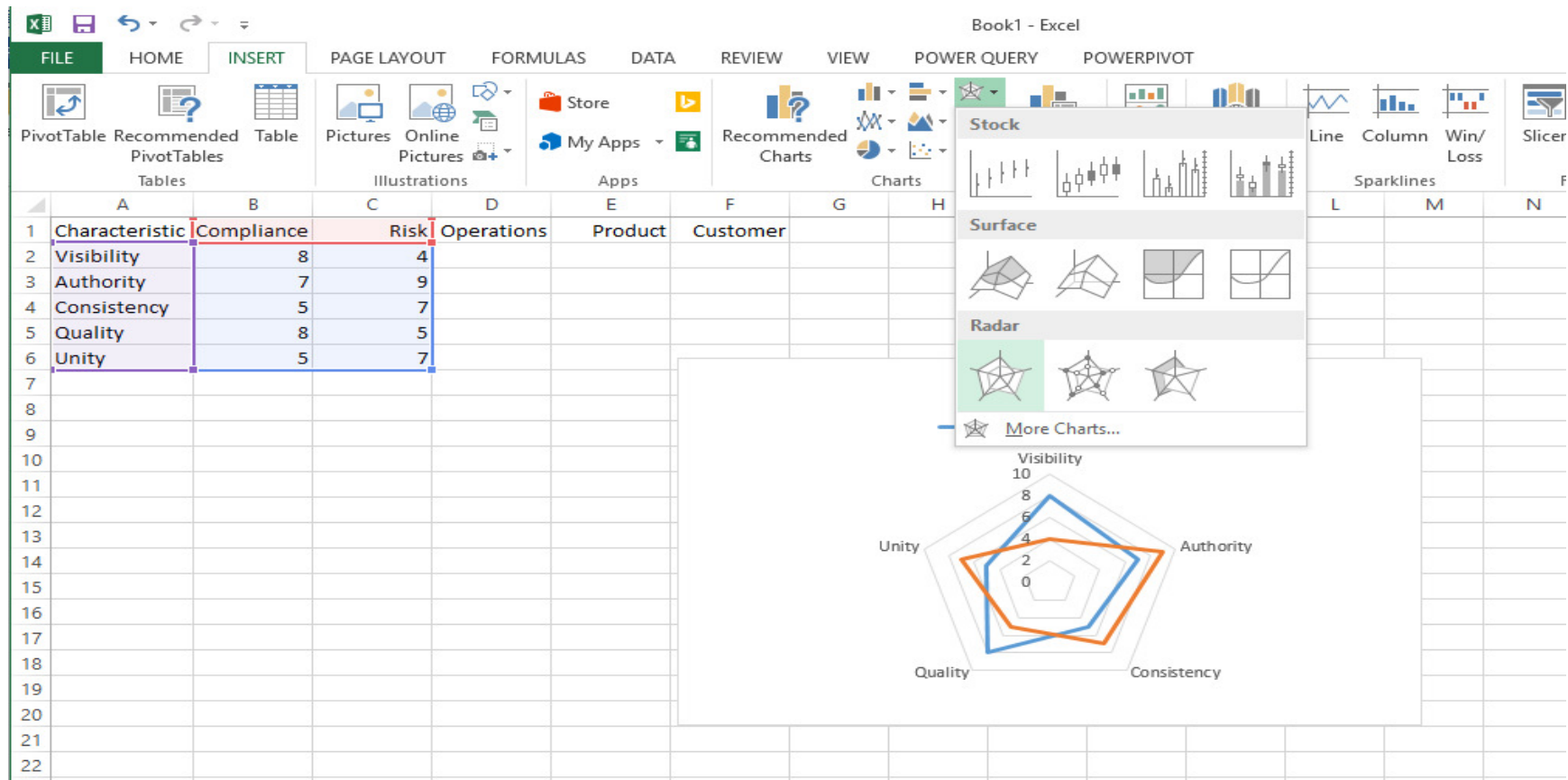
— Compliance — Risk — Operations — Product — Customer



# Scorecard: Visualization by Priority



# Building Radar Charts in Excel



# Encouragement

*Start* where you are

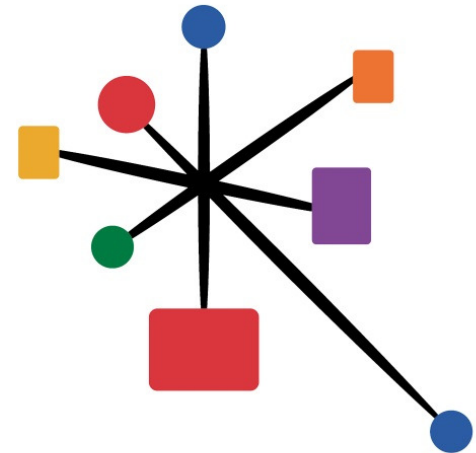
*Use* what you have

*Do* what you can

*Arthur Ashe*

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# Breakout Session

## Describe your current Data Culture

Take a pad of sticky notes. Write down one thought/response per card.

1. What are some examples where you are currently using your data well?
2. What are your pain points with the data you use today?