

# How to Implement Effective Program and Risk Management Dashboards

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# Agenda

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- ▶ **Part I – Introduction**
  - ▶ What is a dashboard?
  - ▶ Dashboard Critical Success Factors
- ▶ **Part II – Risk Management**
  - ▶ Risk Management Fundamentals
  - ▶ Exercise #1a, 1b, and 1c – Risk prioritization
  - ▶ Risk Dashboards
  - ▶ Risk Dashboard Exercise
- ▶ **Part III – Broader Perspective**
  - ▶ Program Dashboards
  - ▶ Enterprise Dashboards
  - ▶ Program Dashboard Exercise

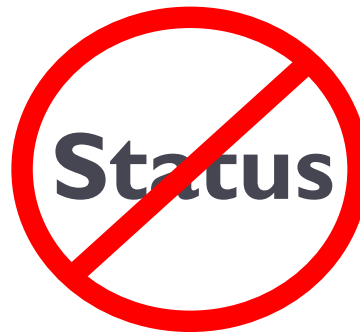
# Part I - Introduction

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# What is a dashboard?

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- ▶ A visual display that fits entirely on a single computer screen
- ▶ Contains the most important information needed to achieve one or more business objectives
- ▶ Can be monitored at a glance
  - ▶ Sufficient information is presented that allows decisions to be made and action taken



(Few, 2010, p.34)

# What is a dashboard?

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- ▶ Allows decision makers to visually identify trends, patterns, and anomalies
- ▶ Presents a broad, high-level overview that instantly indicates the state of things

(Few, 2010, p.99)

# Dashboard Critical Success Factors

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## ▶ Thirteen common mistakes

- ▶ Exceeding a single screen of data
- ▶ Provide inadequate context for the data
- ▶ Choosing a deficient measure
- ▶ Presenting excessive precision and/or detail
- ▶ Choose inappropriate display media
- ▶ Present excessive or meaningless variety
- ▶ Use poorly designed display media
- ▶ Arrange data poorly
- ▶ Inaccurately encode quantitative data
- ▶ Lack of or, ineffective highlighting of important data
- ▶ Clutter the display with useless bells & whistles
- ▶ Inappropriate or excessive use of color
- ▶ Design an unattractive display

(Few, 2010, p.49)

# Dashboard Critical Success Factors

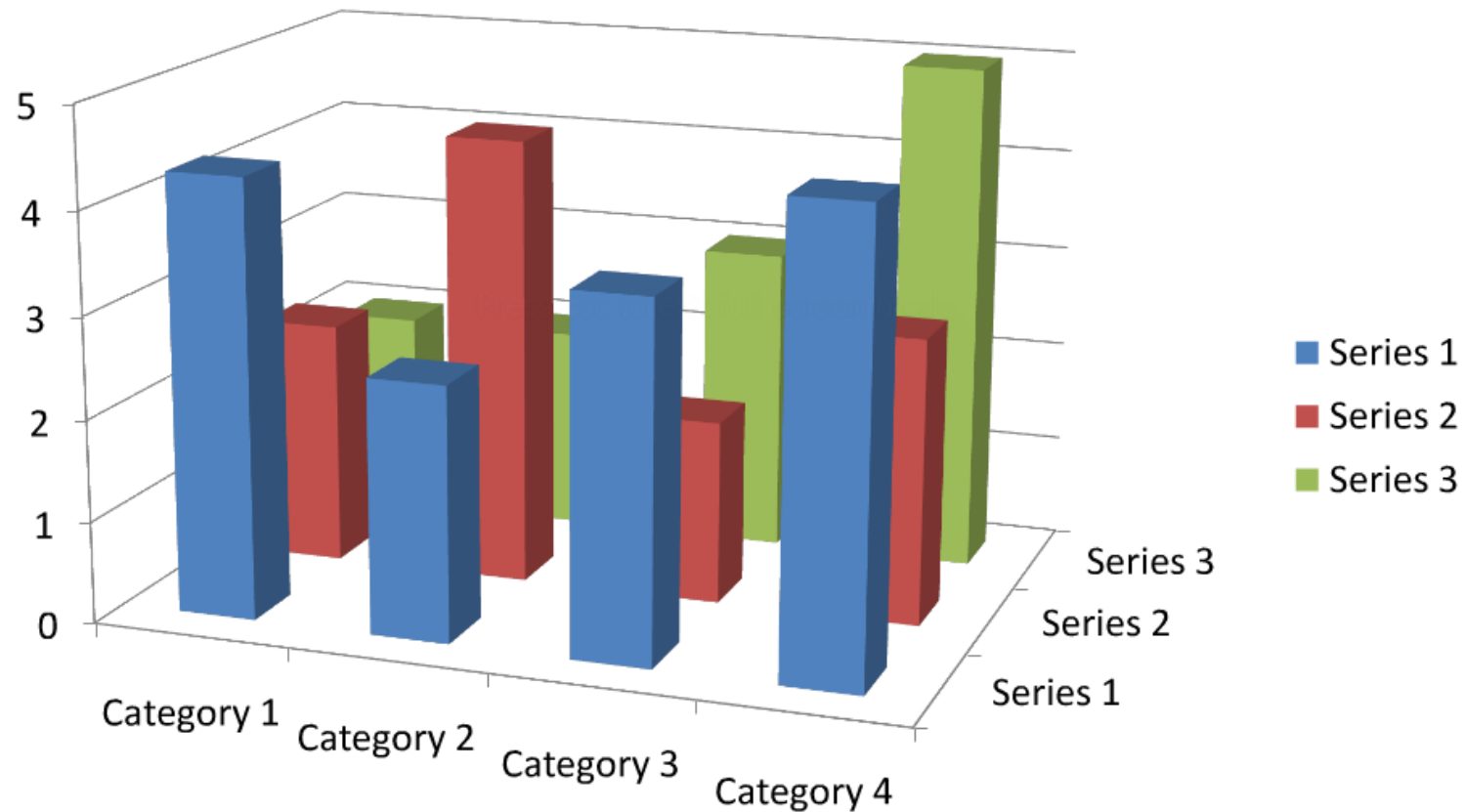
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- ▶ Exceeding a single screen of data

(Few, 2010, p.49)

# Dashboard Critical Success Factors

- Provide inadequate context for the data



(Hursman, A. (2010).



# Dashboard Critical Success Factors

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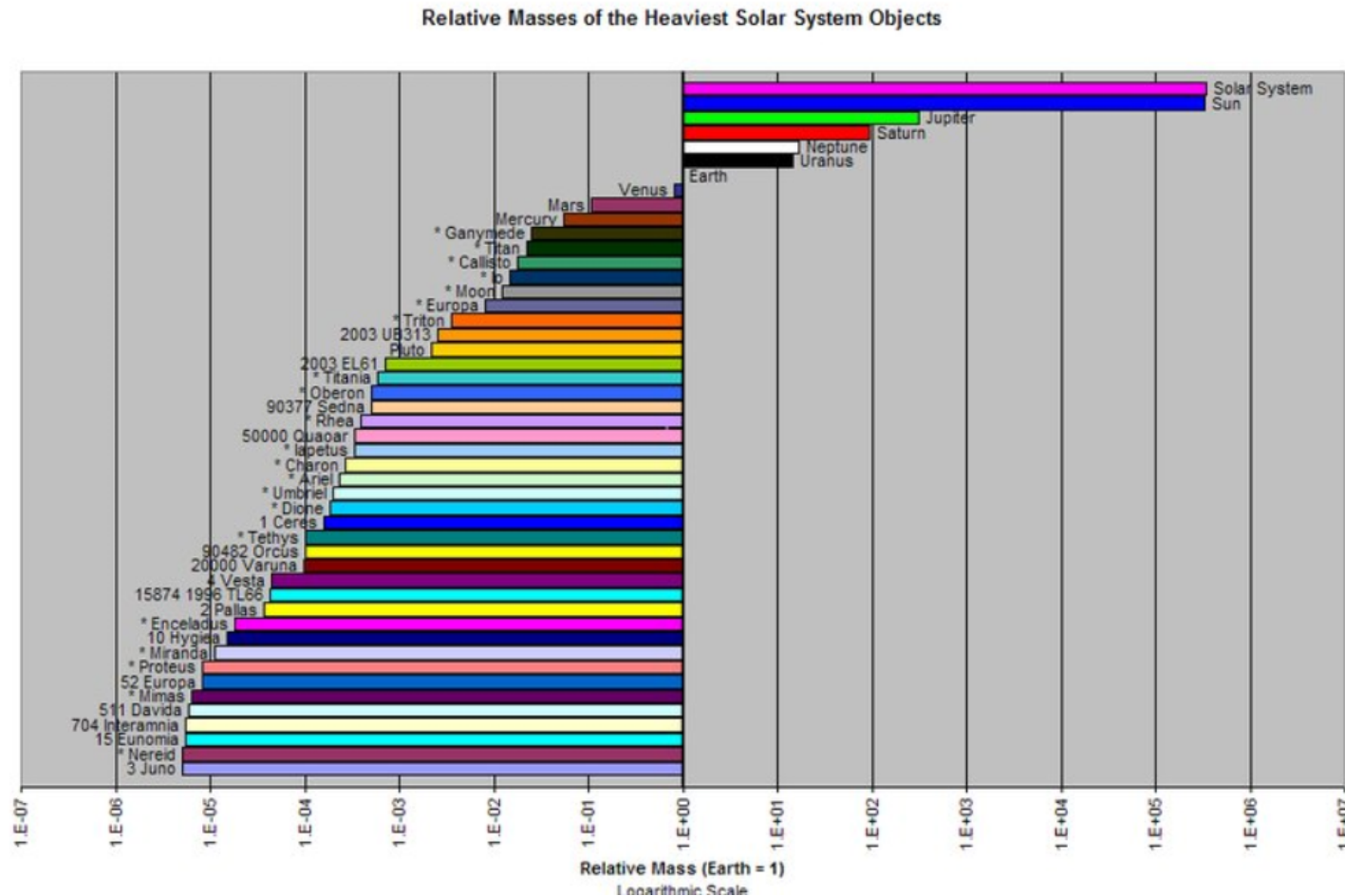
- ▶ Choosing a deficient measure

(Few, 2010, p.49)



# Dashboard Critical Success Factors

## ► Presenting excessive precision and/or detail



(Hursman, A. (2010).

# Dashboard Critical Success Factors

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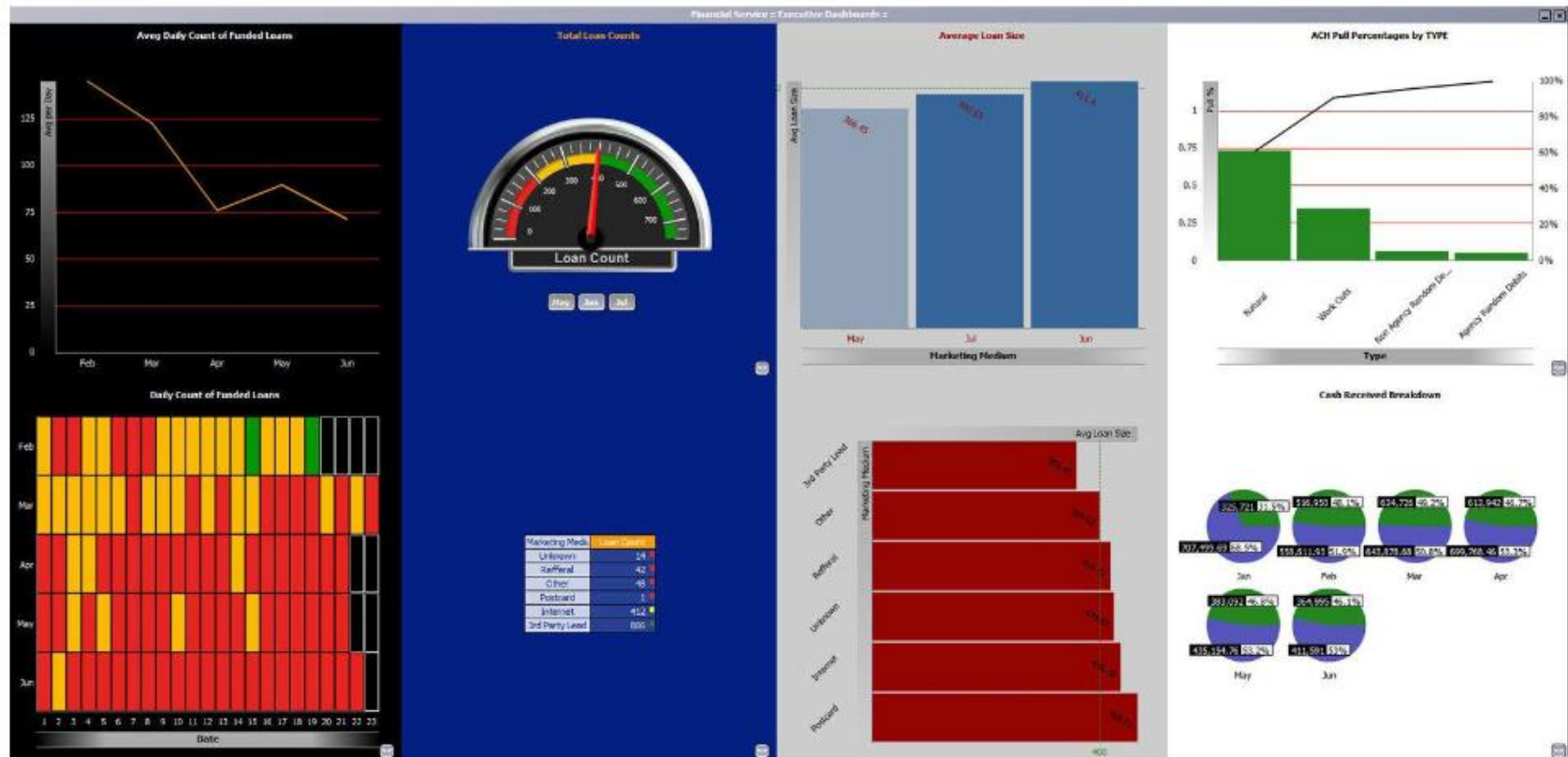
- ▶ Choose inappropriate display media

(Few, 2010, p.49)



# Dashboard Critical Success Factors

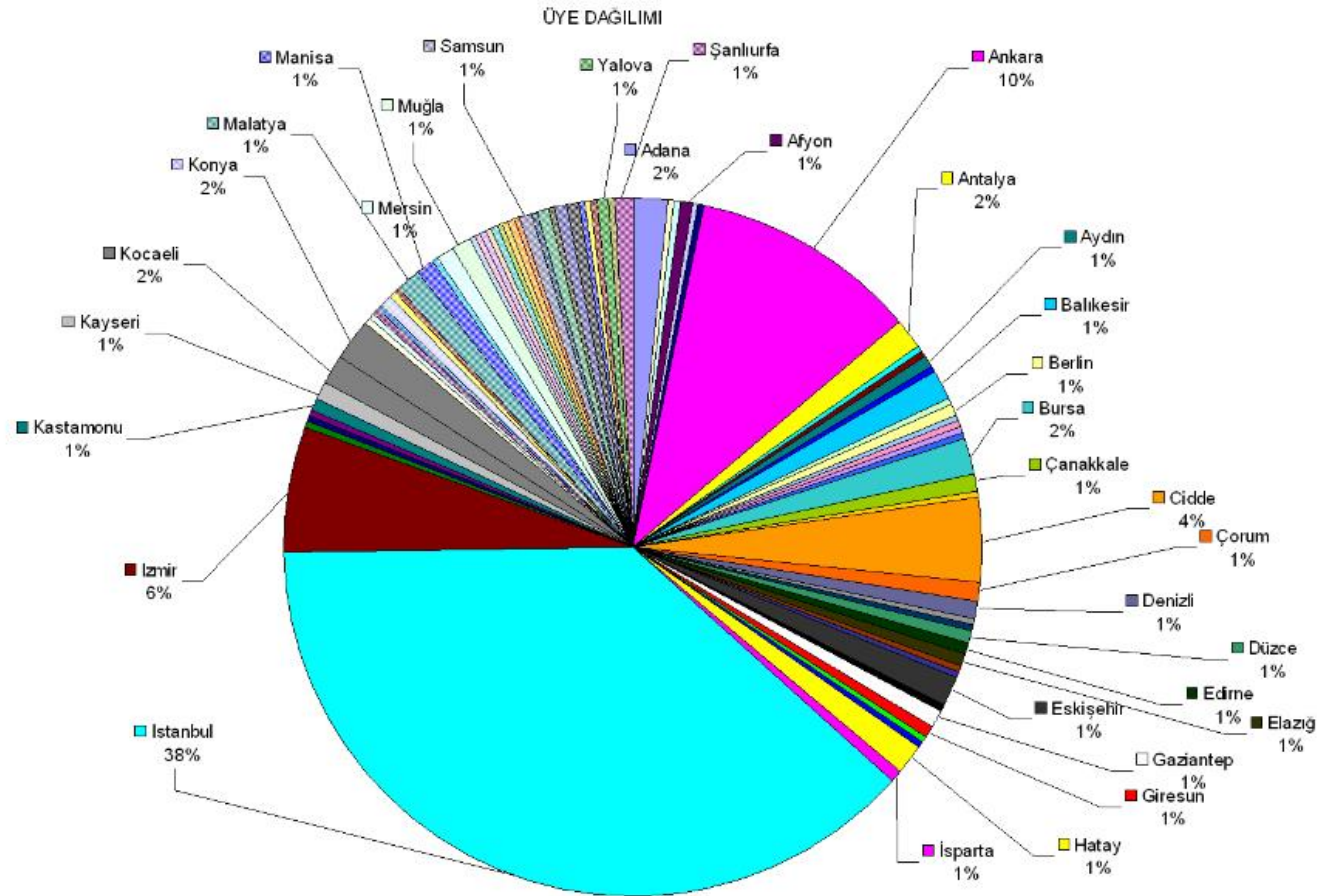
- Present excessive or meaningless variety



(Hursman, A. (2010).

# Dashboard Critical Success Factors

## ► Use poorly designed display media



(Hursman, A. (2010).

# Dashboard Critical Success Factors

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- ▶ Arrange data poorly

(Few, 2010, p.49)



# Dashboard Critical Success Factors

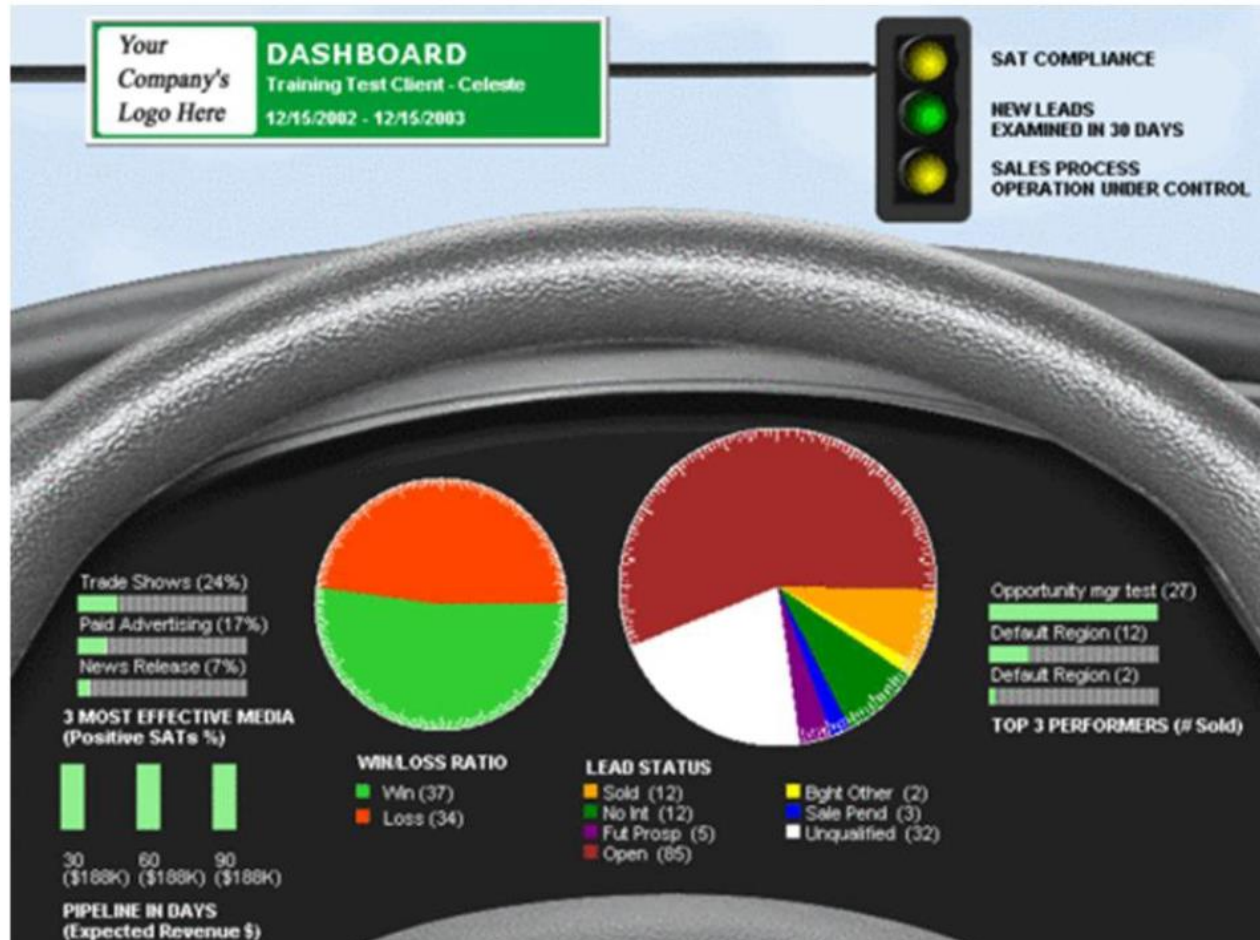
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- ▶ Inaccurately encode quantitative data

(Few, 2010, p.49)

# Dashboard Critical Success Factors

- ▶ Lack of or, ineffective highlighting of important data



(Hursman, A. (2010).



# Dashboard Critical Success Factors

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- ▶ Clutter the display with useless bells & whistles

(Few, 2010, p.49)



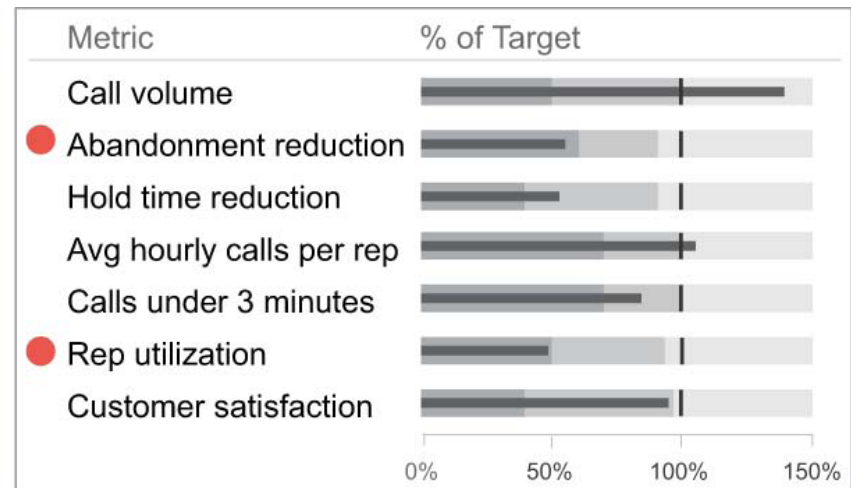
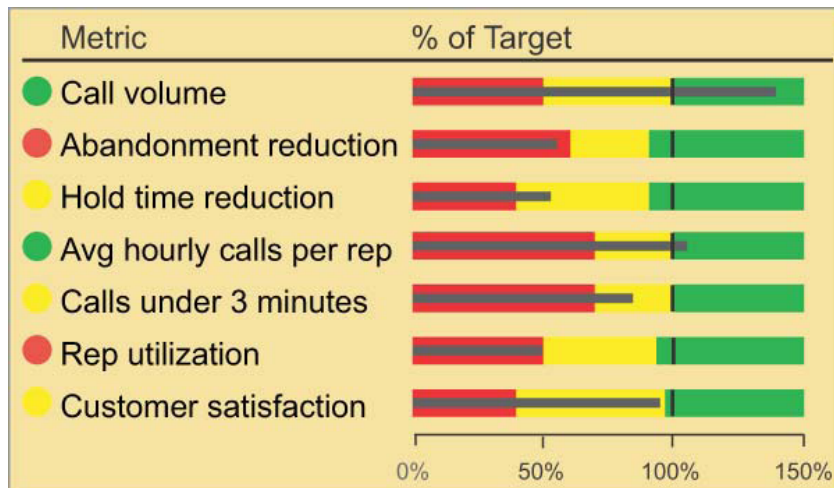
# Dashboard Critical Success Factors

## ► Inappropriate or excessive use of color

Normal color perception



As seen by someone who is color blind



(Few, n.d., p.9-10)

# Dashboard Critical Success Factors

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- ▶ Design an unattractive display

(Few, 2010, p.49)



# Part II – Risk Management

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- ▶ Identify risks
- ▶ Quantify risk impact
- ▶ Prioritize risks
- ▶ Treat risks
  - ▶ Select risk management strategy
  - ▶ Establish risk management budget
  - ▶ Develop risk treatment plan(s)
- ▶ Monitor risk treatment

# Risk Management Fundamentals

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## ▶ Identify risks

- ▶ According to Merriam-Webster, risk is defined as “someone or something that creates or suggests a hazard”.
- ▶ Australia-New Zealand AS/NZS-4360, International Standards Organization (ISO) ISO 31000 Risk Management -- Guidelines on Principles and Implementation of Risk Management defines risk as “the chance of something happening that will have an impact on objectives”
- ▶ PMBOK defines project risk as “an uncertain event or condition that, if it occurs, has a positive or negative effect on at least one project objective, such as time, cost, scope or quality” (Project Management Institute, 2008, p. 275).
- ▶ Risks are NOT conditions, symptoms, events, opinions, issues, etc.

## ▶ Quantify impact to objective(s)

- ▶ 6 week schedule delay
- ▶ \$150,000 budget impact
- ▶ 25% more defects

## ► Prioritize Risks

- |        |        |             |        |      |
|--------|--------|-------------|--------|------|
| Impact | High   | 7           | 2      | 1    |
|        | Medium | 8           | 4      | 3    |
|        | Low    | 9           | 6      | 5    |
|        |        | Low         | Medium | High |
|        |        | Probability |        |      |

		DAU Prioritization Matrix				
Likelihood	5	Low	Medium	High	High	High
	4	Low	Medium	Medium	High	High
	3	Low	Medium	Medium	Medium	High
	2	Low	Low	Low	Medium	Medium
	1	Low	Low	Low	Low	Medium
		1	2	3	4	5
		Consequence				



# Risk Management Exercises

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- ▶ **Exercise 1a**

- ▶ Review the risk information for risk #6-01 and answer questions 1-4.

- ▶ **Exercise 1b**

- ▶ Revise the probability and impact criteria to be more objective

- ▶ **Exercise 1c**

- ▶ Group exercise

# Risk Management Fundamentals

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## ▶ Treat Risks

- ▶ Select risk management strategy
  - ▶ Accept
  - ▶ Avoid
  - ▶ Transfer
  - ▶ Mitigate
- ▶ Establish budget
  - ▶ Risk management budget
    - Used for mitigate and transfer
  - ▶ Contingency reserve
    - Used for accept and mitigate
  - ▶ Management reserve
    - Unknown-unknowns
    - Black Swan events
- ▶ Develop risk treatment plans



# What Are The Risks?

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- ▶ What are the risks associated with these images?



Lowe's NASCAR  
Build Cost - \$150,000



2010 Porsche Panamera 4-door Turbo  
Sedan  
Kelly Blue Book - \$144,261

# What Are The Risks?

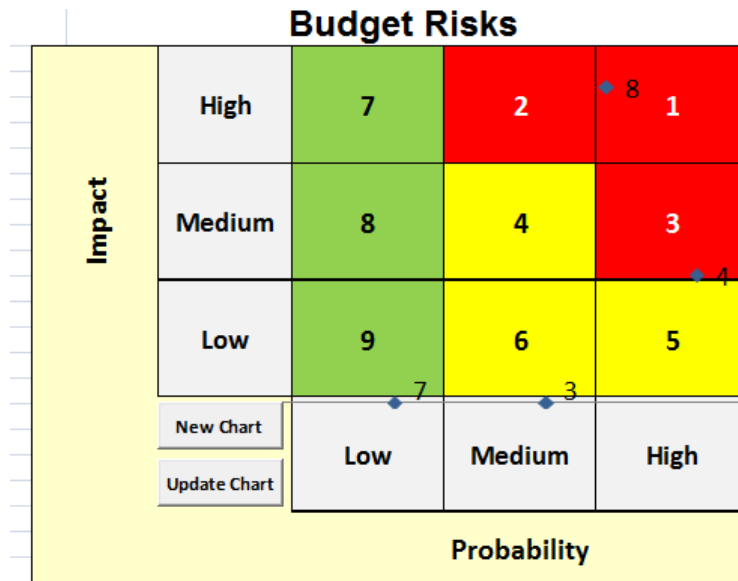
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- ▶ What is the goal/objective?
- ▶ What is the context?
- ▶ What risk management strategy should be used?



# Risk Dashboards

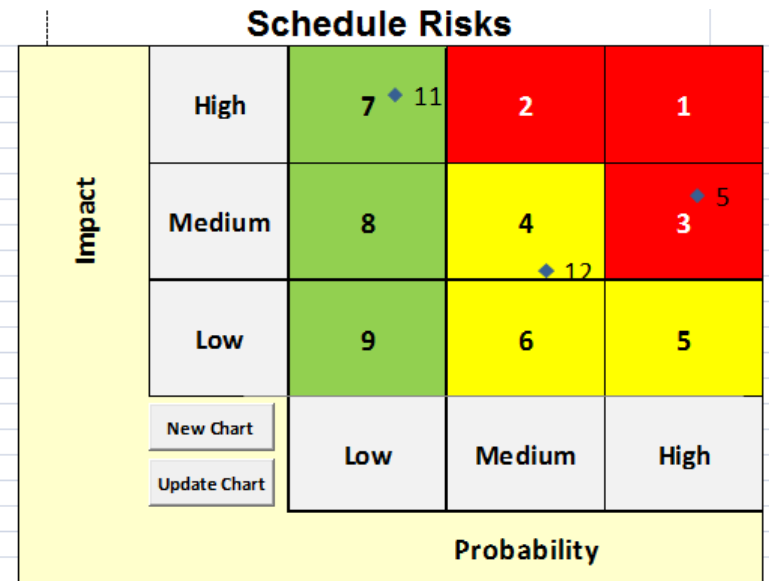
## ► Risk exposure dashboard



Risk Category Budget

Sum of Impact Probability

Risk ID	Low	Medium	High	Grand Total
10			325,670	325,670
9			36543	36543
8		123450		123450
4	50000			50000



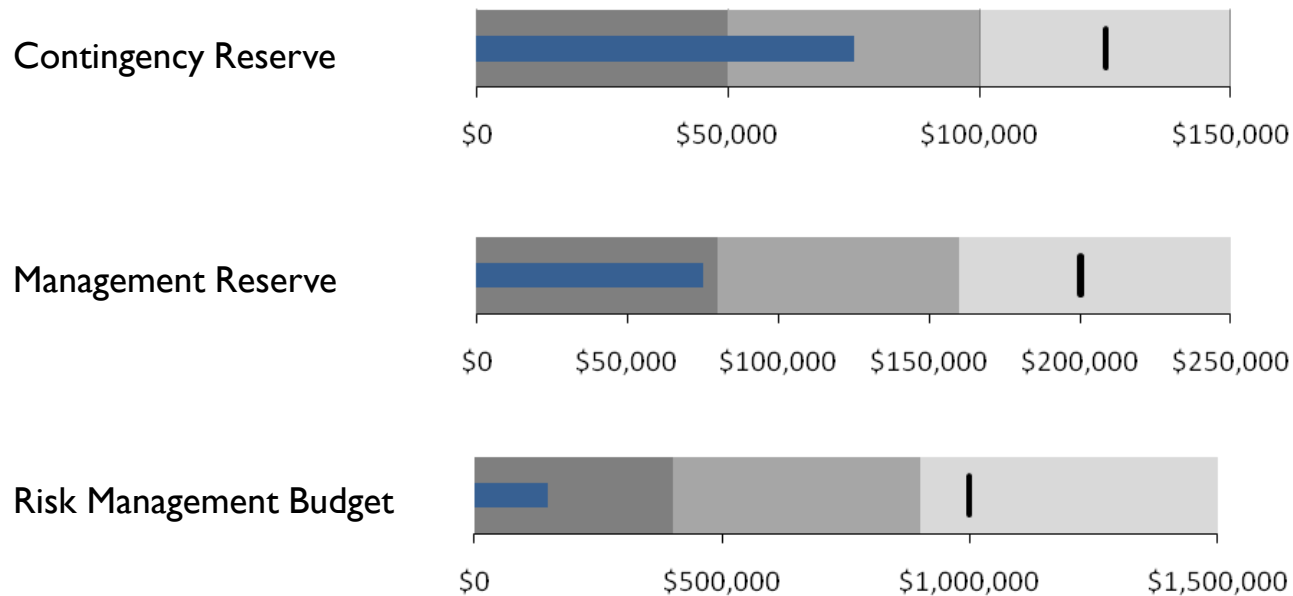
Risk Category Schedule

Sum of Impact

	Low	Medium	High	Grand Total
5			8	8
12		5		5
11	12			12
Grand Total	12	5	8	25

# Risk Dashboards

## ► Risk budget dashboard



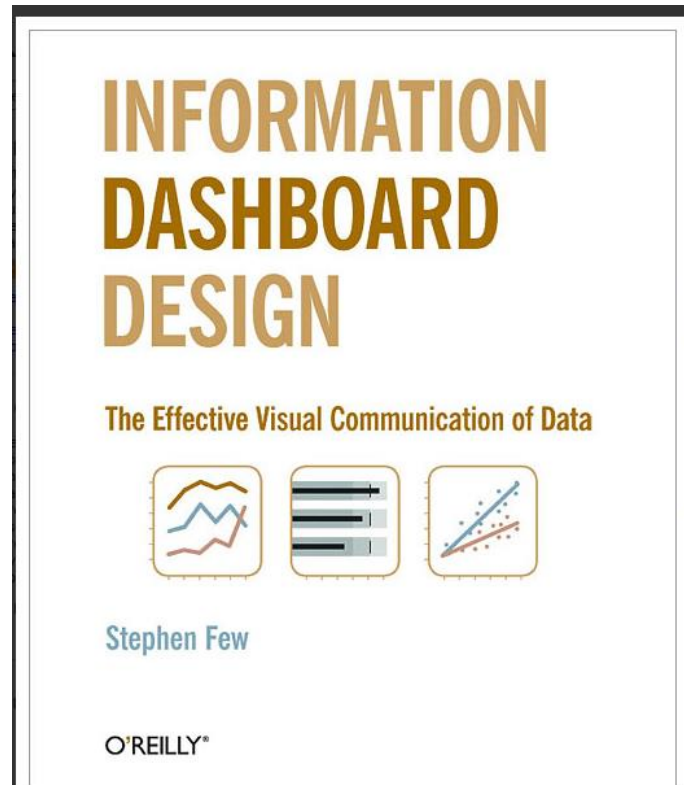
# Risk Dashboard Exercise

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- ▶ Develop a dashboard for both NASCAR and Porsche based on the project objective and risk management strategy.
  - ▶ Document the objective, strategy, and risk management budget(s)
  - ▶ Describe and explain the risk management dashboard components

# Dashboard Assets

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# Part III – Broader Perspective

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- ▶ **Program Dashboards**
  - ▶ Mission alignment
  - ▶ Budget / revenue impact
  - ▶ Business value
  - ▶ Quality
- ▶ **Enterprise Dashboards**
  - ▶ Mission alignment
  - ▶ Shareholder value / revenue impact
  - ▶ Core values
  - ▶ Safety
  - ▶ Market share
  - ▶ Others?



# Dashboard Assets

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- ▶ **Dashboard Design for Real-Time Situation Awareness** - [http://www.geomant.com/download/Inova-Geomant\\_Dashboard\\_Whitepaper.pdf](http://www.geomant.com/download/Inova-Geomant_Dashboard_Whitepaper.pdf)
- ▶ <http://www.perceptualedge.com/>
- ▶ **Graph Selection Matrix** - [http://www.perceptualedge.com/articles/misc/Graph\\_Selection\\_Matrix.pdf](http://www.perceptualedge.com/articles/misc/Graph_Selection_Matrix.pdf)

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