



Metrics Dashboard with Multiple Level Drilldown Capability

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A Department of Energy
National Laboratory



Objectives

- **Show an example of a metrics dashboard with multiple level drilldown capability**
- **Demonstrate how to use PowerPoint to create such a dashboard**
- **Provide tips and “lessons learned” for creating your own dashboard**



What is a Dashboard?

- **A Dashboard should be:**
 - **A visual display of the status of the most important metrics in determining the overall health of an organization.**
 - **An aggregate of information that can be drilled down into to get to the level of detail needed to make data-based decisions.**



What Does Our Main Dashboard Need to Display?

The overall health of Sandia National Laboratories (SNL) Safeguards & Security (S&S) Program

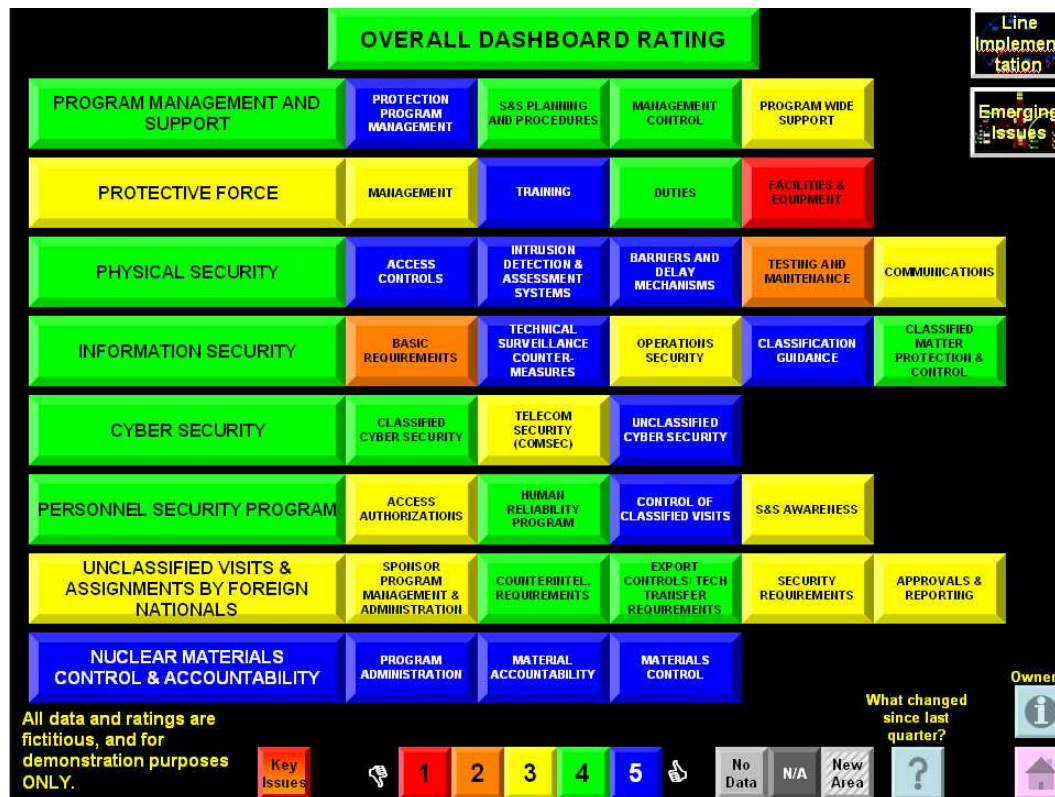
- By Topical and Subtopical areas, as identified by our customer, US Department of Energy (DOE)
- <http://www.directives.doe.gov/pdfs/forms/470-8.pdf>



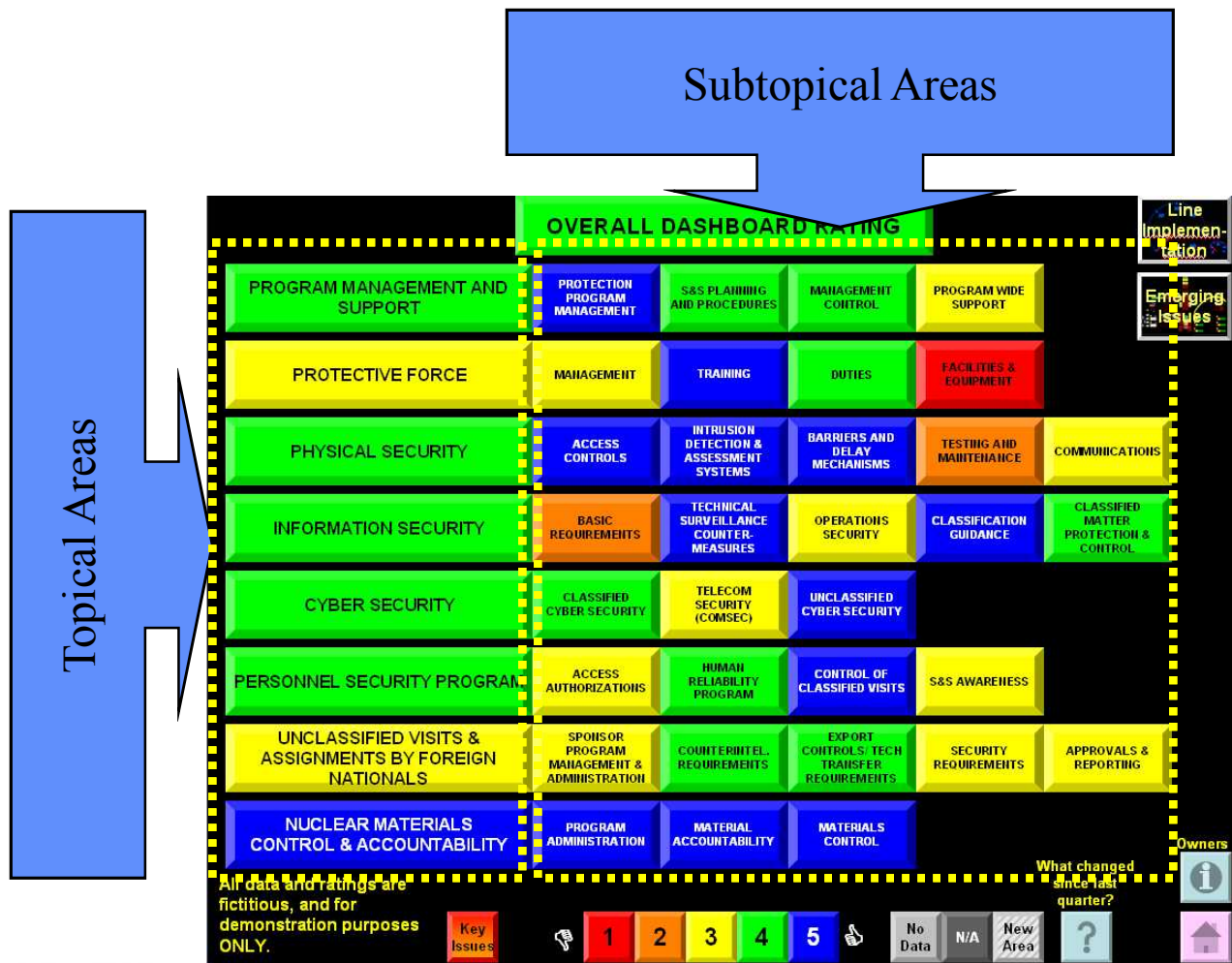
DOE F 470.8

SNL S&S Performance Metrics Dashboard

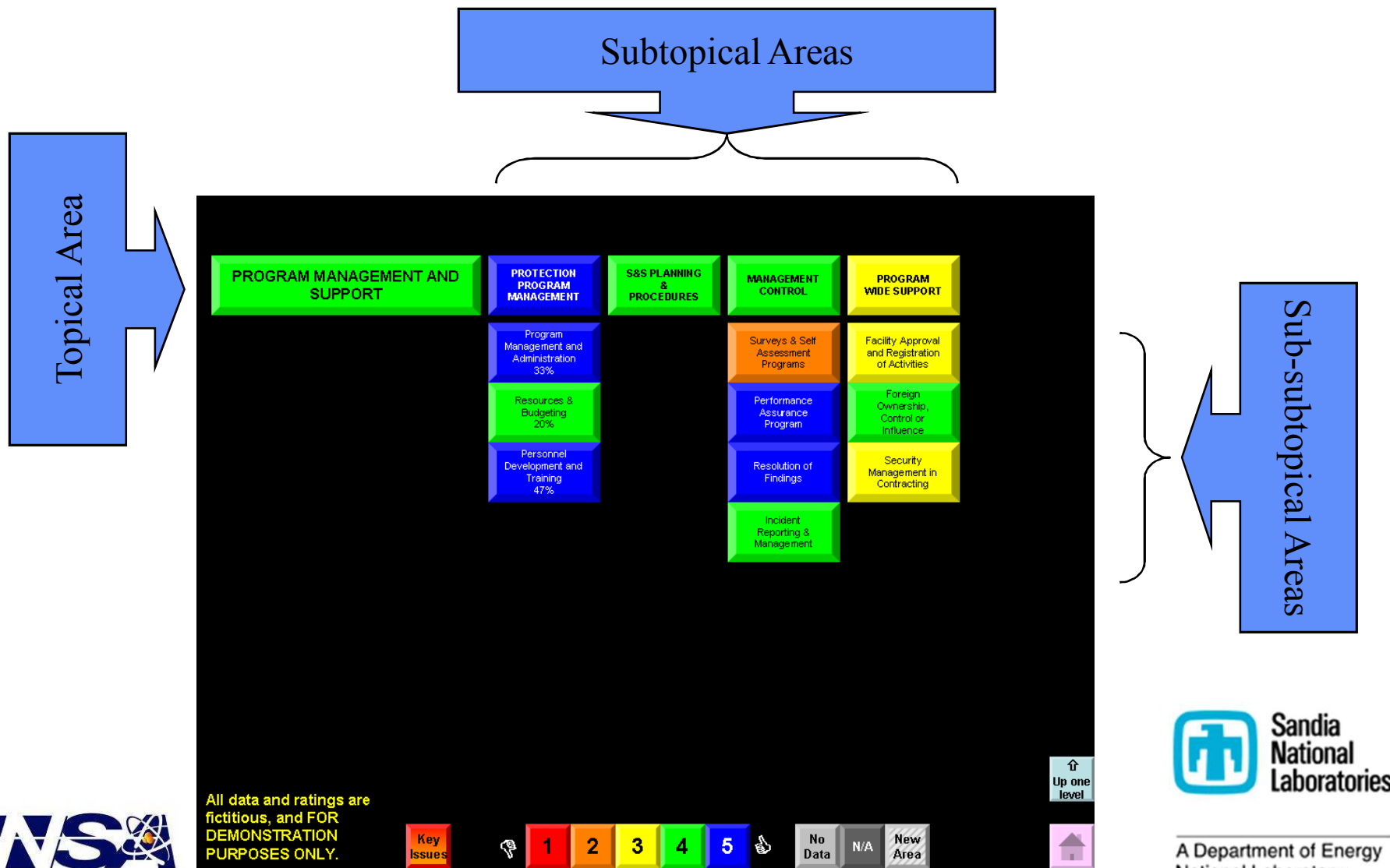
All data and ratings are fictitious and
FOR DEMONSTRATION PURPOSES ONLY.



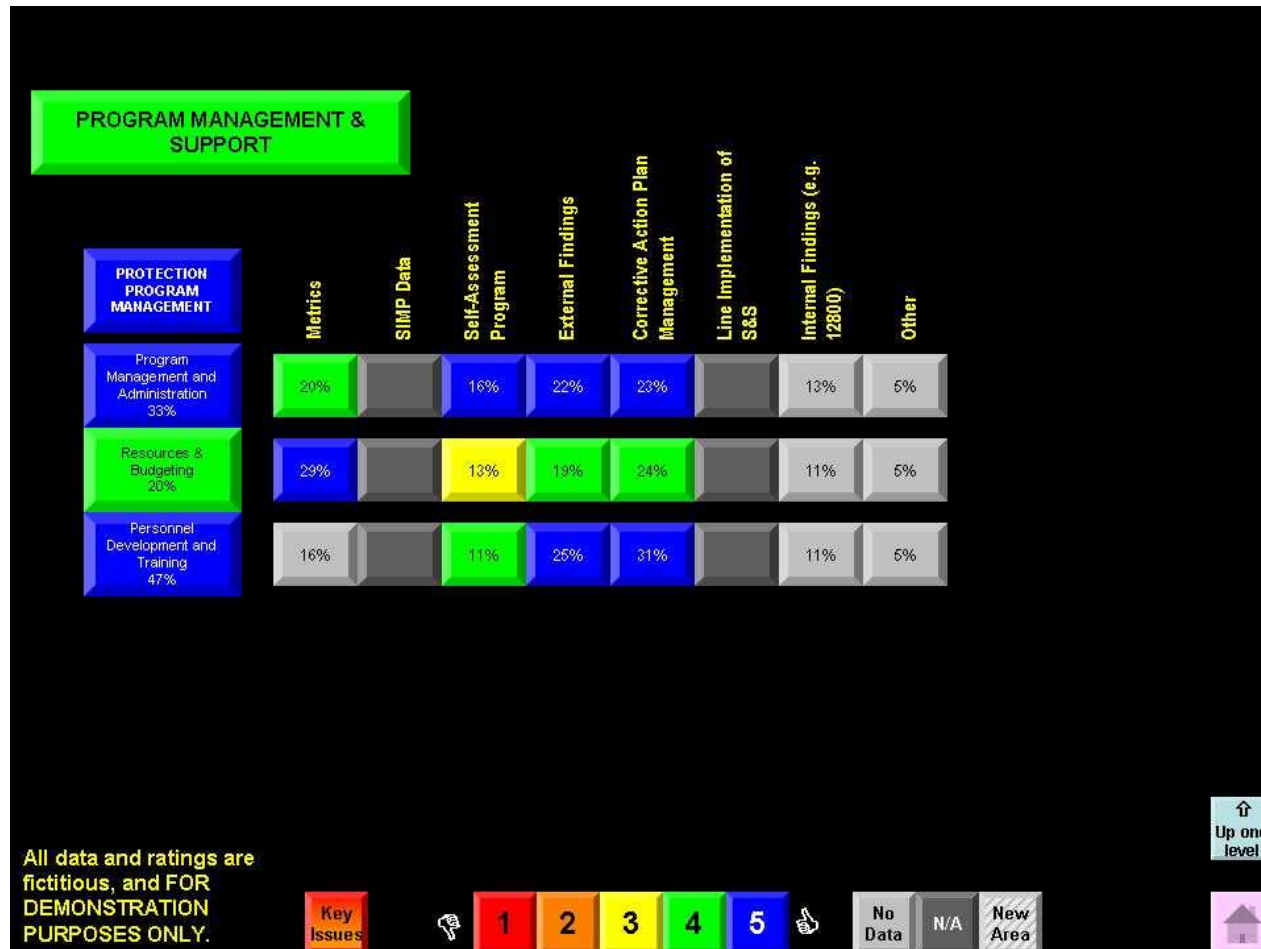
Topical & Subtopical Areas on Main Dashboard



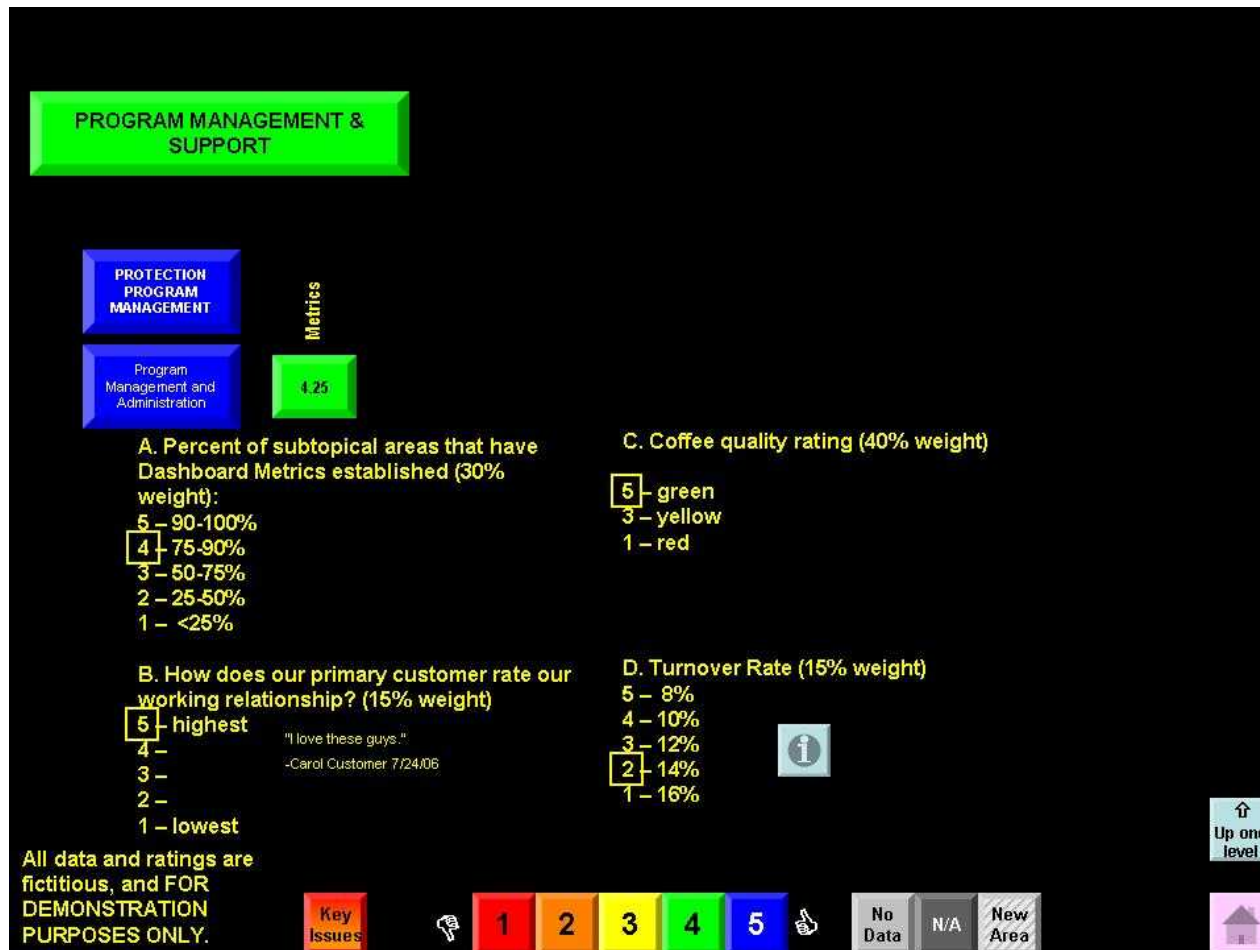
Drill-down on Topical Area Reveals Subtopical and Sub-subtopical Areas



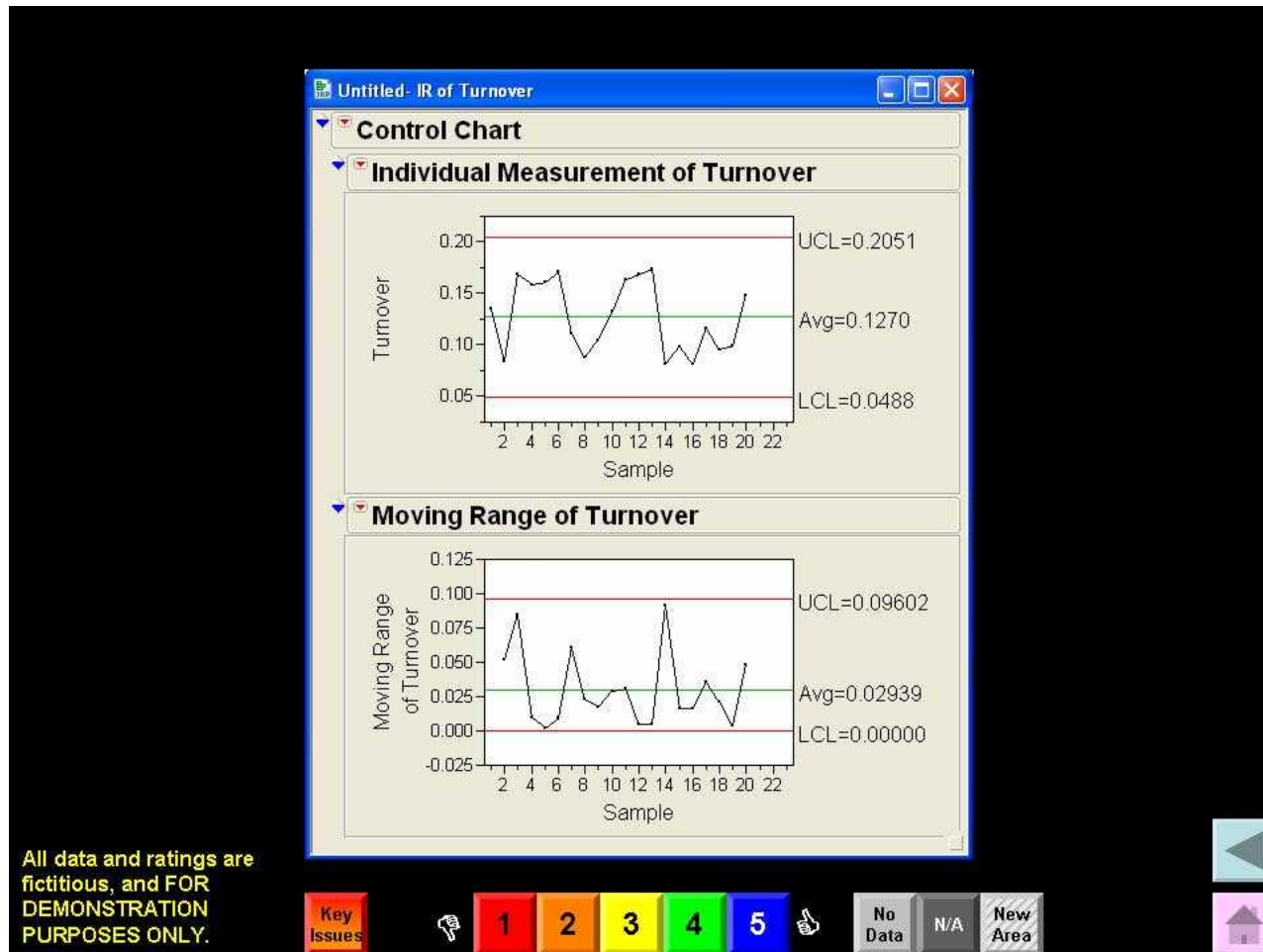
Drill-down on Subtopical Area Reveals Factors used in Rating Each Sub-subtopical



Drill-down on Factor Shows the Detail of the Factor Rating



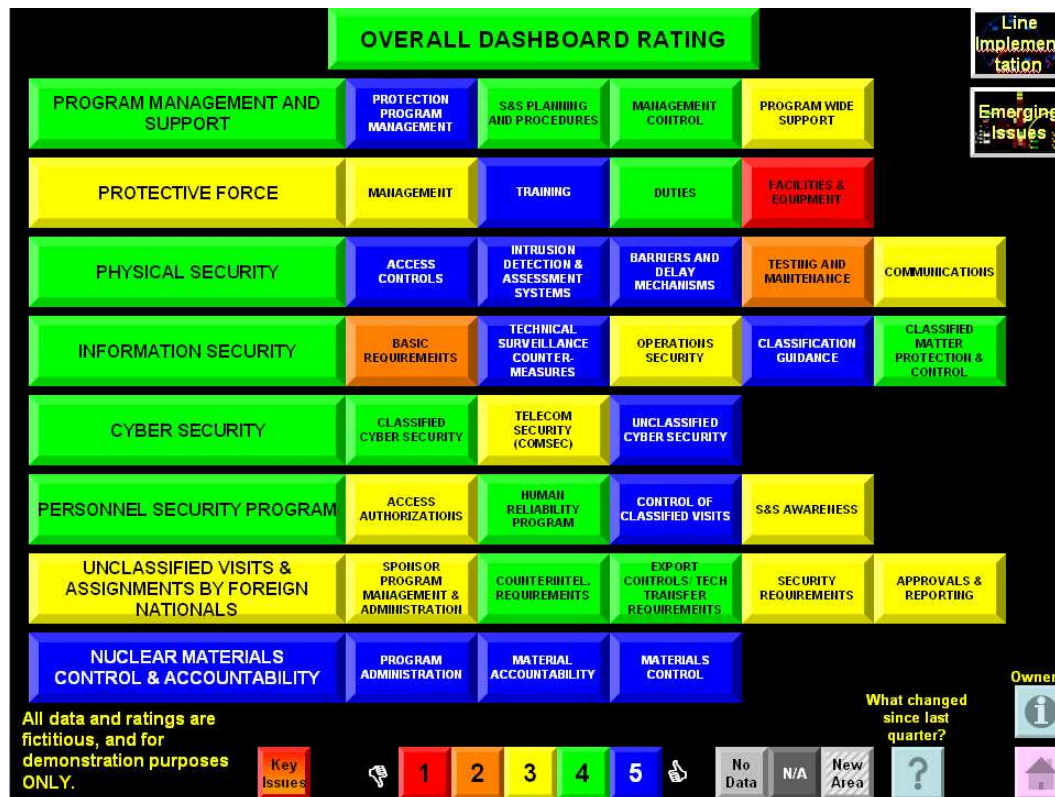
Drill-down on Information Button Reveals Details



SNL S&S Performance Metrics Dashboard

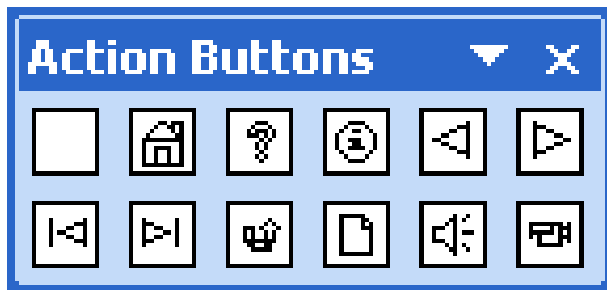
Dashboard Demonstration

Volunteer?



Dashboard Construction (Follow along if you have a laptop with PowerPoint)

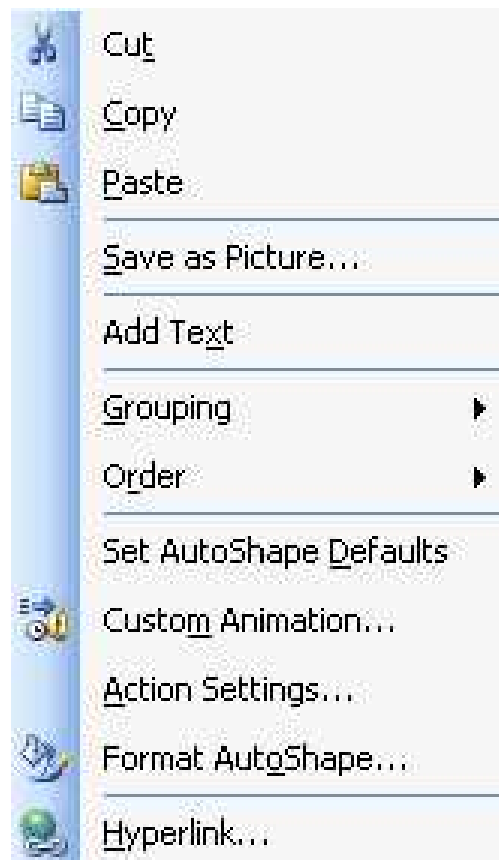
- Uses Action Buttons in AutoShapes



- Tip: You can drag to make menu float

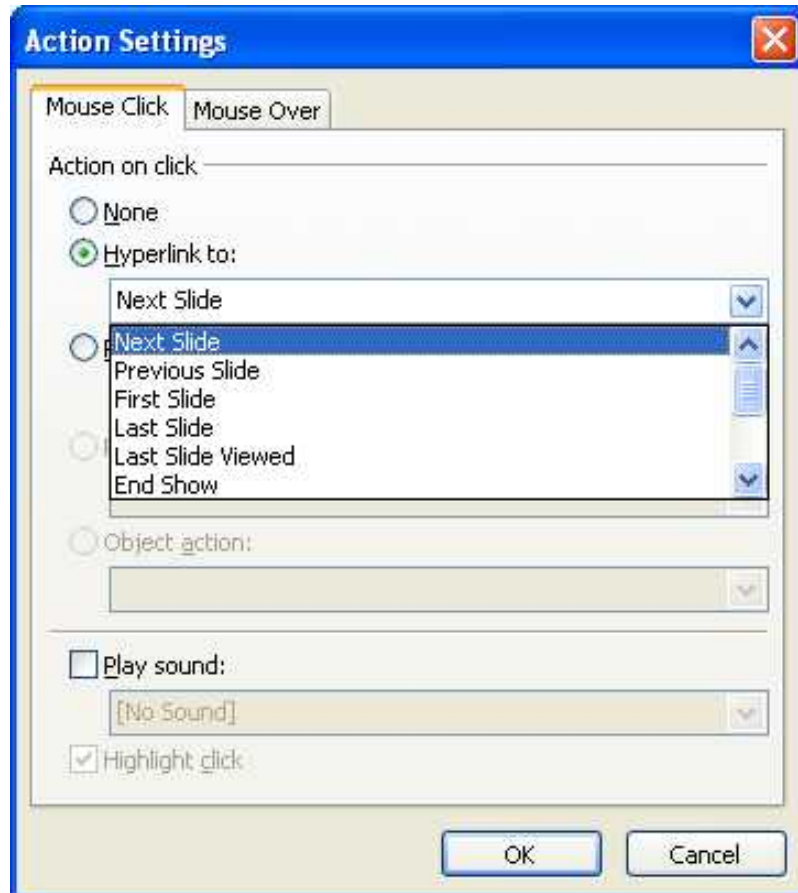
Action Settings... → Hyperlink to

Right-click Action Button and click Action Settings...

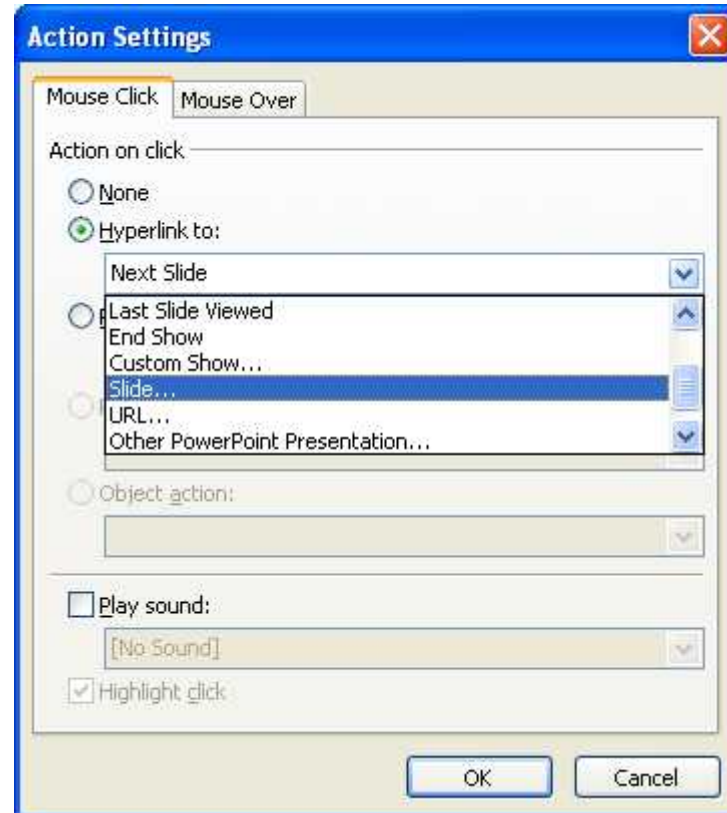


Action Settings and Hyperlinks

Click Hyperlink to:

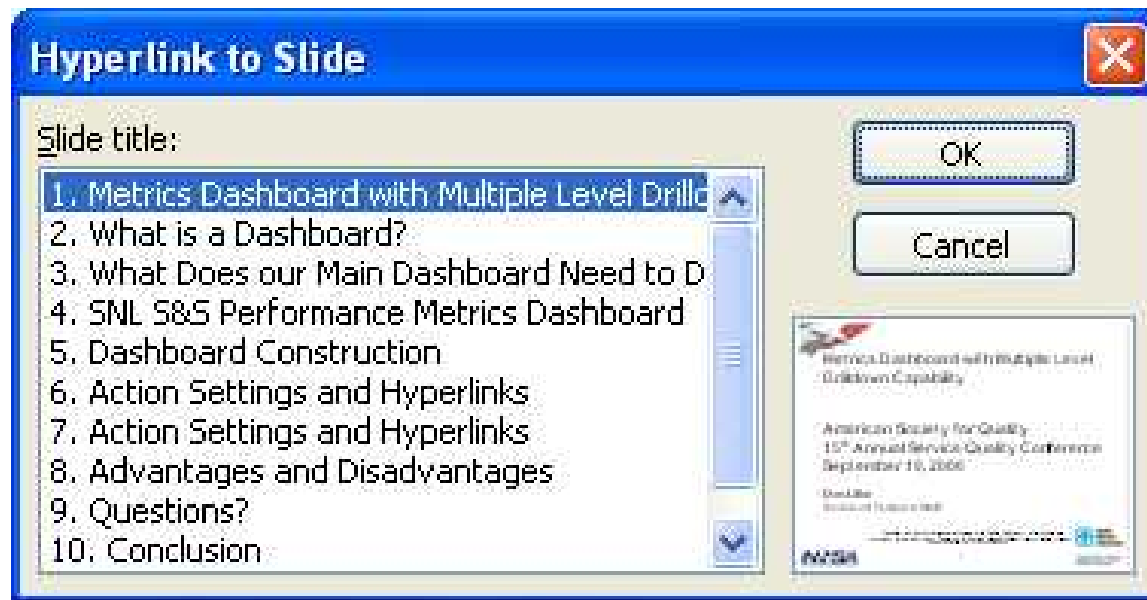


Select Slide...



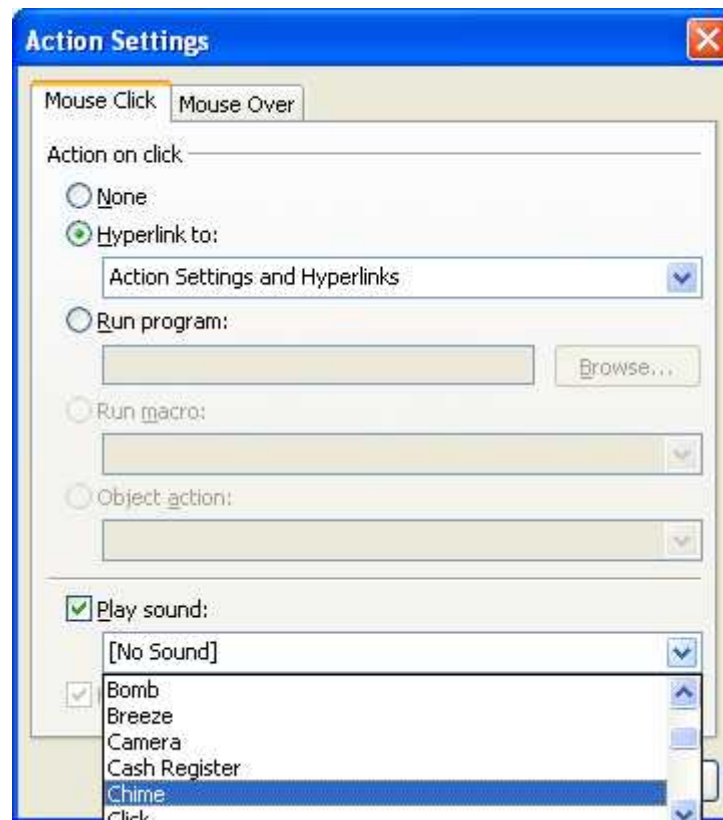
Action Settings and Hyperlinks

Select the Slide to hyperlink to



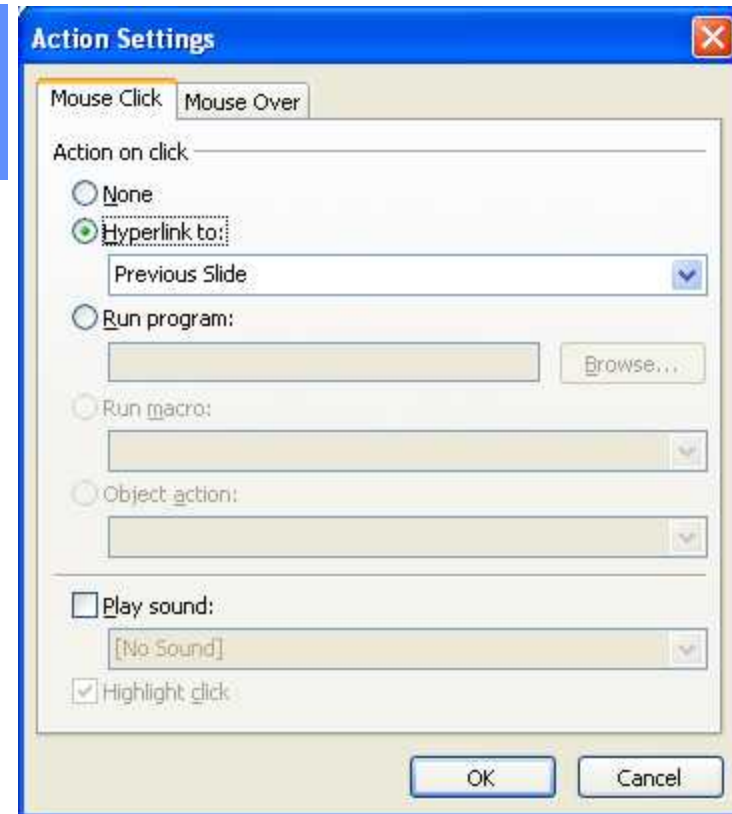
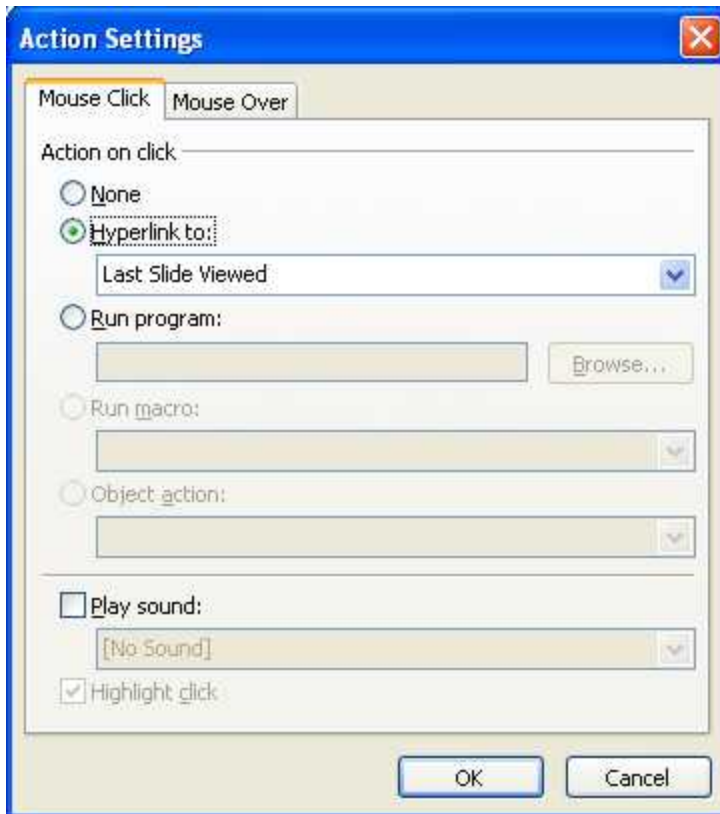
Action Settings and Hyperlinks

Play sound:



Action Settings and Hyperlinks

Don't forget to include a return link!





Action Settings and Hyperlinks

Don't forget to include a return link!

You can just use the higher level indicator as the link to the higher level.

For important links that need to be on every page, use the Slide Master.

Action Settings and Hyperlinks

View → Master → Slide Master





Let's Do It! Create a Simple Dashboard

Two Top-tier areas with two drill-down metrics each

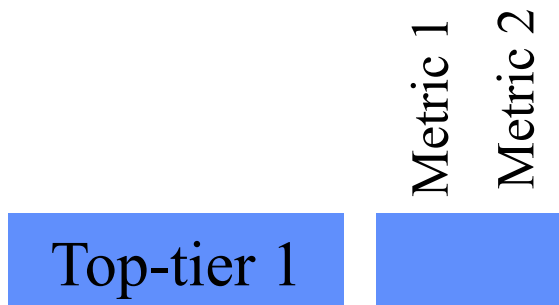
	Metric 1	Metric 2
Top-tier 1		
Top-tier 2		



	Metric 1	Metric 2
Top-tier 1		
Top-tier 2		

- **Start with the main dashboard. Include all high Top-tier areas as well as the primary metrics used to rate the Top-tiers.**
- **Don't forget to add a Home button to each slide (Slide Master is a good place for this)**
- **We'll add hyperlinks to the boxes above.**





- The first drilldown page is the first main Topical Area (Top-tier 1)
- Also included are the Subtopical Areas (Sub-metrics 1 and 2)
- We'll add hyperlinks to the boxes above.





Metric 1

Top-tier 1



5 – >50

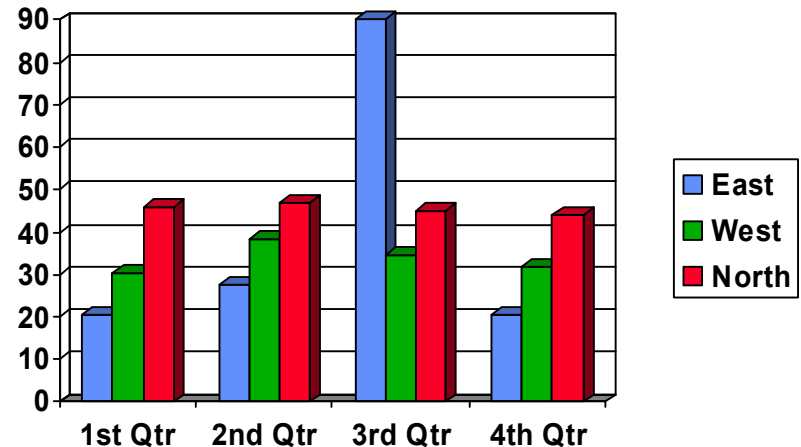
4 – 40

3 – 30

2 – 20

1 – <20

The second drilldown pages will show the details for the metrics, including the rating scale used. Coloring of boxes starts at the lowest level. Let's color these.



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Top-tier 1

Metric 2

Rating Scale

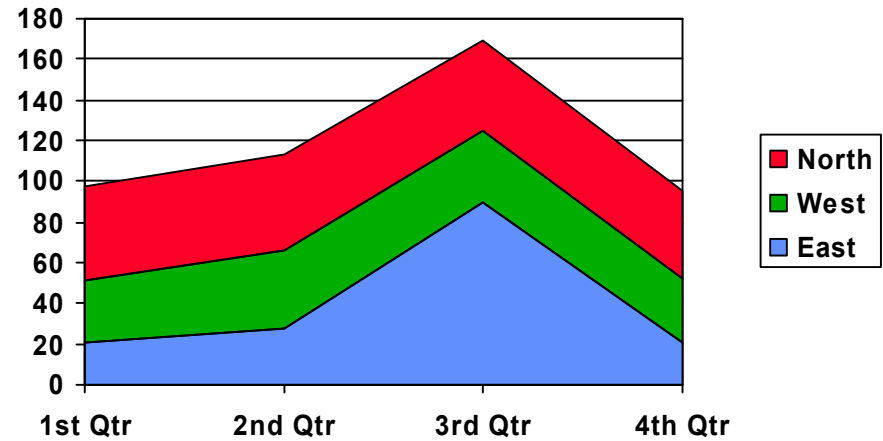
5 = >100

4 = 90

3 = 80

2 = 70

1 = 60





Top-tier 2

Metric 1
Metric 2





	Metric 1
Top-tier 2	
5 – 100%	
4 – 90%	
3 – 80%	
2 – 70%	
1 – <70%	



Top-tier 2

Metric 2



Rating Scale

5 = 20 days or less

4 = 20-25 days

3 = 25-30 days

2 = 30-35 days

1 = 35-40 days or more





Tips and “Lessons Learned”

- **Your highest level dashboard should be what the customer cares about, not just what you happen to be measuring.**
- **Take advantage of multiple level drilldowns. Some customers will never go past the first screen, while others will drill down until they see the raw data.**
- **Weight the factors accordingly. Do not always assume they should be weighted evenly. That will rarely be the case.**



Advantages and Disadvantages

- **Advantages**

- Easy to customize
- Easy to revise
- Uses software everyone has
- Can cut and paste screenshots from other sources
- Serves as great prototype to show Information Technology folks when it comes time to automate

- **Disadvantages**

- Ratings must be changed manually
- Data not downloaded automatically



Questions?



Conclusion

You can build your own metrics dashboard with multiple level drilldown capability using PowerPoint!

You don't need to buy fancy dashboard software to get started. Most of us already have PowerPoint, so what are you waiting for? Go create your Metrics Dashboard!



“If what we know about our processes can’t be expressed in numbers, we don’t know much about them.”

— Lord Kelvin