

# CONSULTATHON

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## 180 DC BITS Goa

### TRAINING MODULE 2-1

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# Problem Solving Methodology

## SCQA

The SCQA is frequently used tool for case competitions. It works well both as a tool to understand the context, challenges and key question of the case, but also as a communication tool to make a good executive summary. We recommend that the team does the SCQA right after reading the case. A good tip is to first do it individually and then as a group to ensure independent thinking and maximize chances of getting it right. Make sure that you have a short and crisp SCQ that you are completely aligned on before moving on the finding the right answer.

- 1 **Situation** – *Set the scene*  
Must be indisputable & relevant to create buy-in among judges
- 2 **Complication** – *Describe the problem*  
Must be biggest tension in your storyline
- 3 **Question** – *Make it clear what you solve*  
Must arise logically from complication & be SMART\*
- 4 **Answer** – *Present your recommendation*  
Must release tension from complication and arise logically from question

The importance of the SCQA cannot be overstated: having the *right* understanding of the company and solving the *right* problem is a must in order to win a case competition.

### Example of SCQA

- We possess a number of strongholds today which have been the backbone of our performance, namely
  - ...
- However, lately performance has been declining ... due to
  - ...
  - ..., having resulted in unsatisfactory sales and profit performance, as well as ...
- Therefore, the key question we have to answer is...

### Focus on XYZ will be essential to our future success

- Several possible directions have been considered and matched with current business strengths
  - ...
- Given our current business strengths, our future goal should be
  - ...
- We will, therefore, build up our business model around...

Situation

Complication

Question

Recommendation

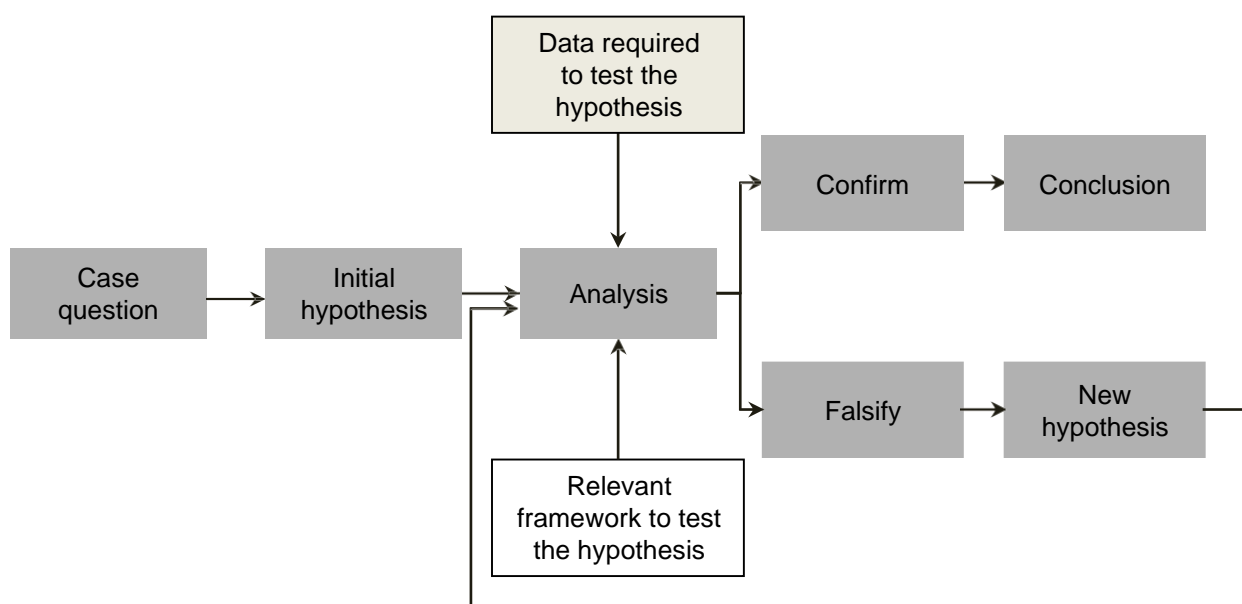
\* See SMART explanation on web

# Problem Solving Methodology

*How Consultants work*

## Hypothesis-driven problem solving

The most fundamental skill of any problem solver is hypothesis-based thinking. Structuring analyses in this way ensures efficiency and focus because only relevant data is being analyzed. A crucial part of the hypothesis-based methodology is to ensure that the formed hypothesis is falsifiable. When a falsifiable hypothesis is formed, one should construct a framework that enables testing of the hypothesis and collect the data required to do so.



*Example:*

Question	Hypothesis	Analysis	Confirm/ falsify	New hypothesis
How can the client cut procurement expenses by 10%?	Increasing scale by 1% will reduce price per item bought by 1.5%	Scale benchmark of main competitors. Required data: Price per bought item and volume for all competitors	Hypothesis falsified. Regression shows that scale does not affect price per item	New hypothesis: Sourcing in emerging markets will reduce procurement expenses

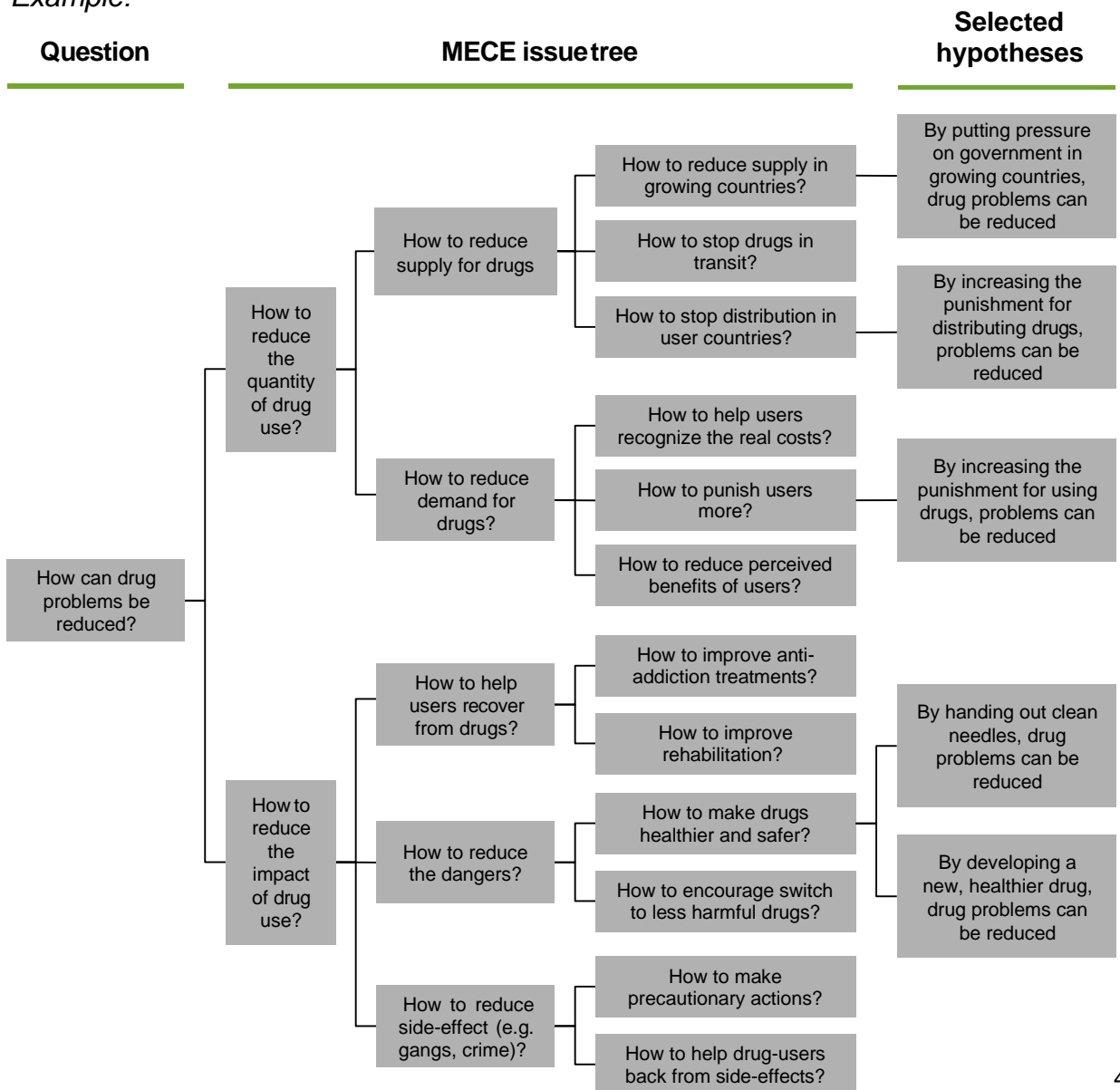
# Problem Solving Methodology

*How Consultants work*

## The MECE issue tree

Issue trees are used to break down complex problems into more manageable sub-issues. While the previous section explained the process of hypothesis testing, the MECE framework helps identify the relevant hypotheses. MECE is an acronym for "Mutually Exclusive, Collectively Exhaustive" and is a way of organizing information – often in the context of issue trees. If the issue tree is done in a "MECE" way, all sub-issues collectively exhaust the solution space (all possible solutions) and the sub-issues are mutually exclusive (no sub-issues are overlapping). A MECE issue tree ensures that no possible solution is missing and that work streams can be distributed among the case team members without any duplication of the work.

*Example:*



# Problem Solving Methodology

## Idea generation

We have experienced that most teams are having issues with switching into a highly creative mode to come up with a good idea when they under time pressure. We have identified three common pitfalls when teams try to brainstorm: 1) You try to think of the good idea directly 2) You hold back ideas that could inspire your colleagues 3) You shut down your colleagues creativity by being realistic and critical to early in the process. Shortly, we will present you with a simple method that allows you to avoid these issues. Furthermore, we have also seen that a lot of teams struggle with deciding on a solution and therefore spends a too much time in the brainstorming phase. The way to overcome this is to have a process that the group has jointly decided on and which it trusts to give a “good enough” idea. Here it is important to remember that there is no perfect solution. In the end, the winner will be the team that presents the most well-argued and compelling solution to the judges. Thus, the idea is just one parameter of your solution and it is only as strong as your argumentation and story.

The method that we recommend to incorporate in your process is called “The Disney Dreamer”. It consists of three phases that your team go through. First, we have the dreamer phase where you write up all your ideas up a blackboard – everything is good enough, so not criticism. The trick here is to think quantity over quality because you want expansive thinking and not restricted thinking. By being inspired by each other’s crazy ideas, you will develop creative out of the box ideas you would otherwise never have thought of. The next phase, the realist, is really all about thinking *how* can we make these crazy ideas work. How can we adjust and combine them so that they actually become feasible? Force yourself to find ways of making the impossible possible. The last phase, the spoiler, is finally the time to be critical of your ideas. Bring out the devil’s advocate and narrow down your best solution/combined solution. When you have completed the process, you will feel good about your solution because you know it was the outcome of a comprehensive process.

### The Dreamer



- Bring out all ideas!
- No criticism is allowed
- Think totally out of the box
- ~20-25 minutes

### The Realist



- Re-examine ideas
- Re-work them into something practical
- Try to make the ideas possible – Think “how”
- ~15-20 minutes

### The Spoiler



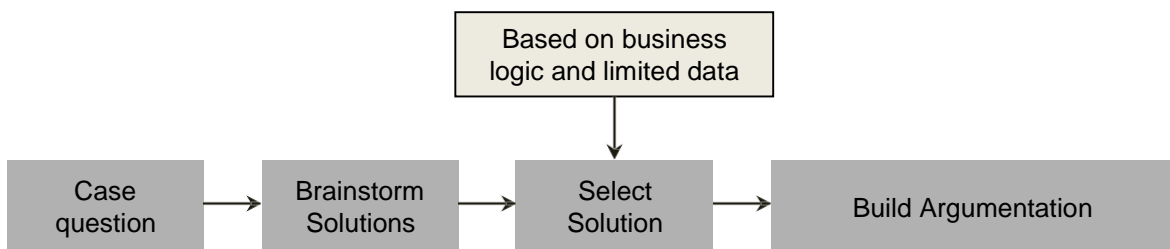
- Be critical and find holes in your solutions
- Narrow down the best solutions
- ~15 minutes

# Problem Solving Methodology

An Approach to Case Cracking

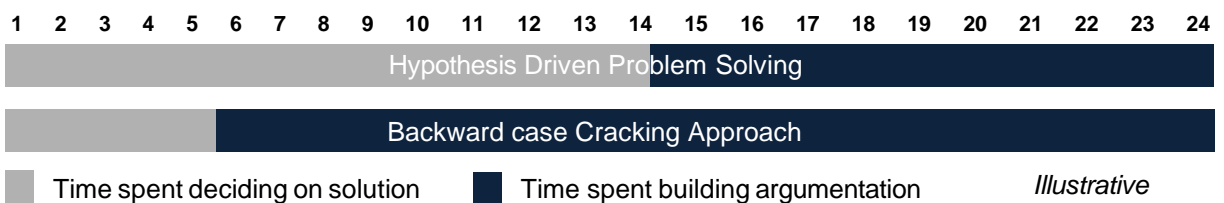
## Backward case cracking approach

A highly effective approach to case cracking is to push your team to select a solution very early in the process. This allows for the majority of the time being spent on building a solid argumentation and obtaining depth in the solution. The team starts by doing the SCQ to narrow down the context and case question. Directly thereafter, the team initiate a thorough brainstorm on recommendations to get all ideas on the table. After this, the team narrows down the solution primarily based on business logic, only making strictly necessary analysis and checkups with data outside of the case. Using this approach, a team can settle on a solution within the first 4-6 hours. This makes the majority of the time available to build the argumentation for the chosen solution, limiting time spent on other options that won't be presented anyway.



### Comparison of the two problem solving approaches

Keep in mind that there is no “correct” solution in case competitions, just as in real world consulting. Therefore, in a case competition an extra hour spent analyzing your way to the optimal solution might sometimes be better spent on building your argumentation. The upside here is clear: The extra time allows you to obtain more depth in your solution and strengthen your arguments. However, selecting your solution based on less data points and analysis implies the risk of uncovering contradicting data points at a later stage. Here you face the choice of “making it fit” or changing your solution and losing time. The approach is often useful in case competitions, since the strict time pressure does not allow for a full analysis of all relevant alternative solutions.



## Story lining

When building slides, action titles are the foundation of your communication. Action titles summarize the key message of the slide in as short a manner as possible. An action title differs from a regular headline, as it provides a complete, sensible argument that would work outside the context of the given slide. The idea of “story lining” is that a list of the action titles should work as a script that stands on its own and summarizes your story. You can think of the action titles as collectively forming an “elevator speech” of the case solution. It is a way to structure key messages and ensure consistent communication.



*NB: Illustrative example only*

## Dot - Dash

The Dot-Dash is a helpful tool to structure your presentation that incorporates story lining. The idea is to write out the key messages with supporting arguments for each slide. A bullet point (dot) represents the headline of a slide and a hyphen (dash) represents a supporting argument/data point. We recommend that you make a Dot-Dash after you have settled on a solution. By using the Dot-Dash you will structure all of your key messages into a coherent story right from the start in a way that easily allows for delegation of work.

### Example of a Dot-Dash


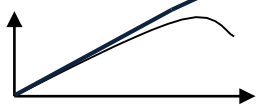
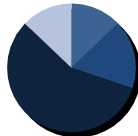
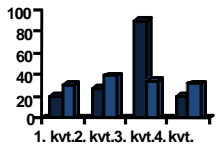
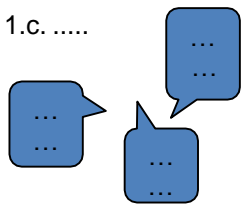
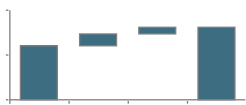
- We possess a number of strongholds today which have been the backbone of our performance, namely
  - High customer loyalty (customer survey with churn rates)
  - High brand awareness (customer survey with brand awareness)

*See SCQA example on earlier for more*

## Storyboarding

The storyboard is a translation of the Dot-Dash into slides and a tool for putting a presentation together in an efficient way. You draw up the slides on a white board with action titles (dots) and then visualize the supporting arguments (dashes). Visualizing ideas and arguments on slides require a lot of practice and therefore it makes sense to do this together as a team to help each other out. Typically, some team members are better than others at slide production, and storyboarding can help leverage the strengths of different team members.

### Example of a storyboarding

Situation points • ... • ... • ...	(Supporting situation slides) 	Complication points • ... • ... • ...	(Supporting complication slides) 
Recommendation... 1. ... 2. ... 3. ...	1. ... a. ... b. ... c. ...	1.a. ... 	1.b. ... 
1.c. .... 	Resolution main points 1. ... 2. ... 3. ...	2. ... a. ... b. ... c. ...	2.a. ... 

**Tell what you want to tell them, then tell them, and then tell them what you just told them**

To win a case competition, you have to communicate your findings effectively. Generally, it is a good idea to repeat your main findings three times to make sure the judges remember them. We recommended that you start with an executive summary, then you present the actual solution, and lastly, your synthesis the main findings of the solution.

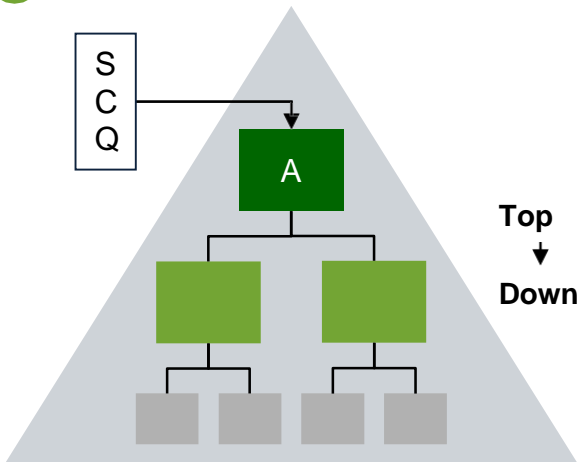




## The Pyramid Structure

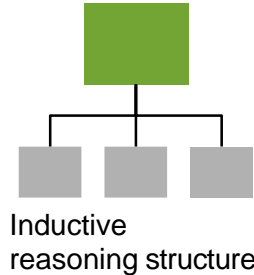
The pyramid structure is a principle of how to structure communication and thinking. The idea is to first summarize the conclusion and then present the supporting arguments. Optimally, this should be done following the MECE principle. Breaking thoughts down in this way has proved to be the most logical way and makes it easier to understand for the receiver. Primarily, there are two ways of presenting arguments, namely, the inductive reasoning structure and the deductive reasoning structure. Generally, inductive is preferred as it is easier to follow, but deductive is very useful when making a controversial point.

### A The Pyramid Structure

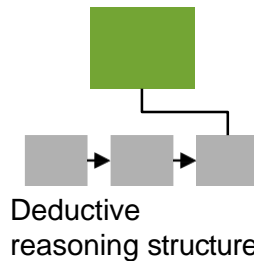


- Summarizes first
- Easier for the receiver to digest – does not have to look for the pattern
- Structures in the most logical order

### B Two main ways of presenting arguments

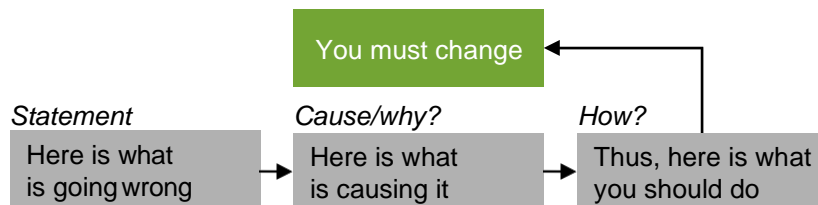


- Give answer upfront
- Easier to group thoughts
- Easier overview for the receiver

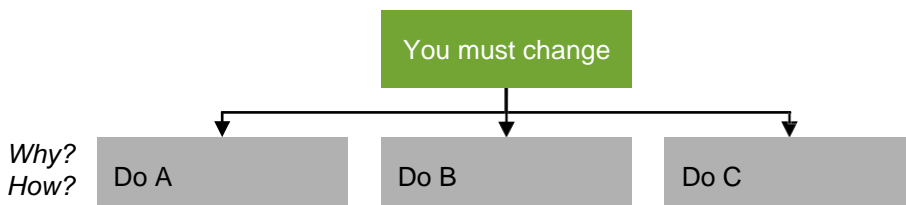


- If receiver might disagree upfront
- If receiver needs basic understanding before conclusion / recommendation

#### Example of deductive structure – argument








#### Example of inductive structure – grouping



## The major elements of a case presentation

There is no formal "right" way of structuring a case presentation. However, most presentation include an executive summary, analysis providing key insights, elaboration of proposed recommendations, financial impact, risk assessment, implementation plan of the solution and a summary. Below you will find one example of how to structure a slide deck

	"Executive summary"	<ul style="list-style-type: none"><li>•Set the stage and tell them what challenge you are solving</li><li>•Tell the recommendation and its impact upfront</li><li>•Tool: SCQA – 1-2 Slides</li></ul>
	"Key insights"	<ul style="list-style-type: none"><li>•Identify the sub-problem and what is causing it</li><li>•This part should drive towards your recommendation</li><li>•2-4 slides</li></ul>
	"Solution"	<ul style="list-style-type: none"><li>•Detailed description of each of your recommendations</li><li>•Body of the case deck – clear communication is key</li><li>•2-5 slides</li></ul>
	"Impact, risk and implementation"	<ul style="list-style-type: none"><li>•What is the implementation strategy and what are the risks?</li><li>•What is the impact? Show that you solve the problem!</li><li>•3-4 slides</li></ul>
	"Summary"	<ul style="list-style-type: none"><li>•Synthesize solution with context created in the executive</li><li>•A catchy ending with a call to action</li><li>•Less than 1 minute – 1 slide only</li></ul>

# Fundamentals of Slide Production

## Building blocks of a case competition slide

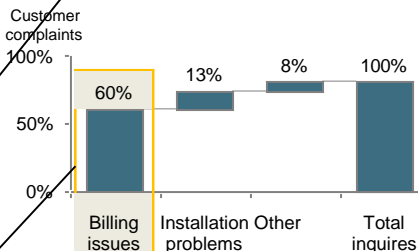
Every slide should serve one of the following three purposes: 1) Communicate a set of key implications or facts. 2) Guide the audience through different analyses or create a logical transition. 3) Drive towards recommendation. Below we give an example of how to structure a slide.

Action title conveys the key message of the slide

### Transparency in pricing solves a fundamental problem for the client and facilitates an improving customer satisfaction

Client Logo

**In the telco industry 60% of customer inquiries concerns billing issues**



Customer complaints

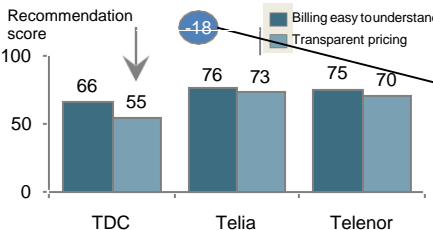
100%  
50%  
0%

Billing issues   Installation problems   Other   Total inquiries

**Customers in the telco industry face severe difficulty in understanding their bills**

- Why are some calls free when others are not?
- Why am I charged extra for this particular service?

**This is a central problem for the client, but is solved with transparent pricing**



Recommendation score

100  
50  
0

TDC   Telia   Telenor

■ Billing easy to understand  
■ Transparent pricing

**Especially for the client, price transparency is a weak spot**

- Transparency remains an obvious lever for customer satisfaction
- Quick wins are realizable even if performance is only increased to peer levels

Key takeaway of graph is told in the header

Executive
Insights
Solution
Impact
Summary

Always include the logo of the case company


Use of graphics to enhance communication

Executive
Insights
Solution
Impact
Summary

Highlight important aspects of the data


Tracker to help guiding the audience

### Slide writing commandments




#### Design principles

- Synthesis: Synthesize many analyses into *one* story
- Accuracy: Use precise, clear communication with no ambiguity
- Transparency: Transparent logic and connection between data and conclusion
- Impact: Highlight key implications and explain the insights
- Context. Tell the story that addresses your audience's concerns, not *your* story



#### Text or graphics?

- Show it, don't tell it – a figure is worth a thousand bullets
- Less is more – design your slides for quick reading
- Keep focus on what is important - avoid excessive use of colors
- Focus on one key message per slide



- Qualitative information → Text slide with supporting visuals
- Quantitative information or relationship → Graph
- When details are demanded → Table or matrices
- Clear graphics to support conclusion, explicit text to explain insight

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