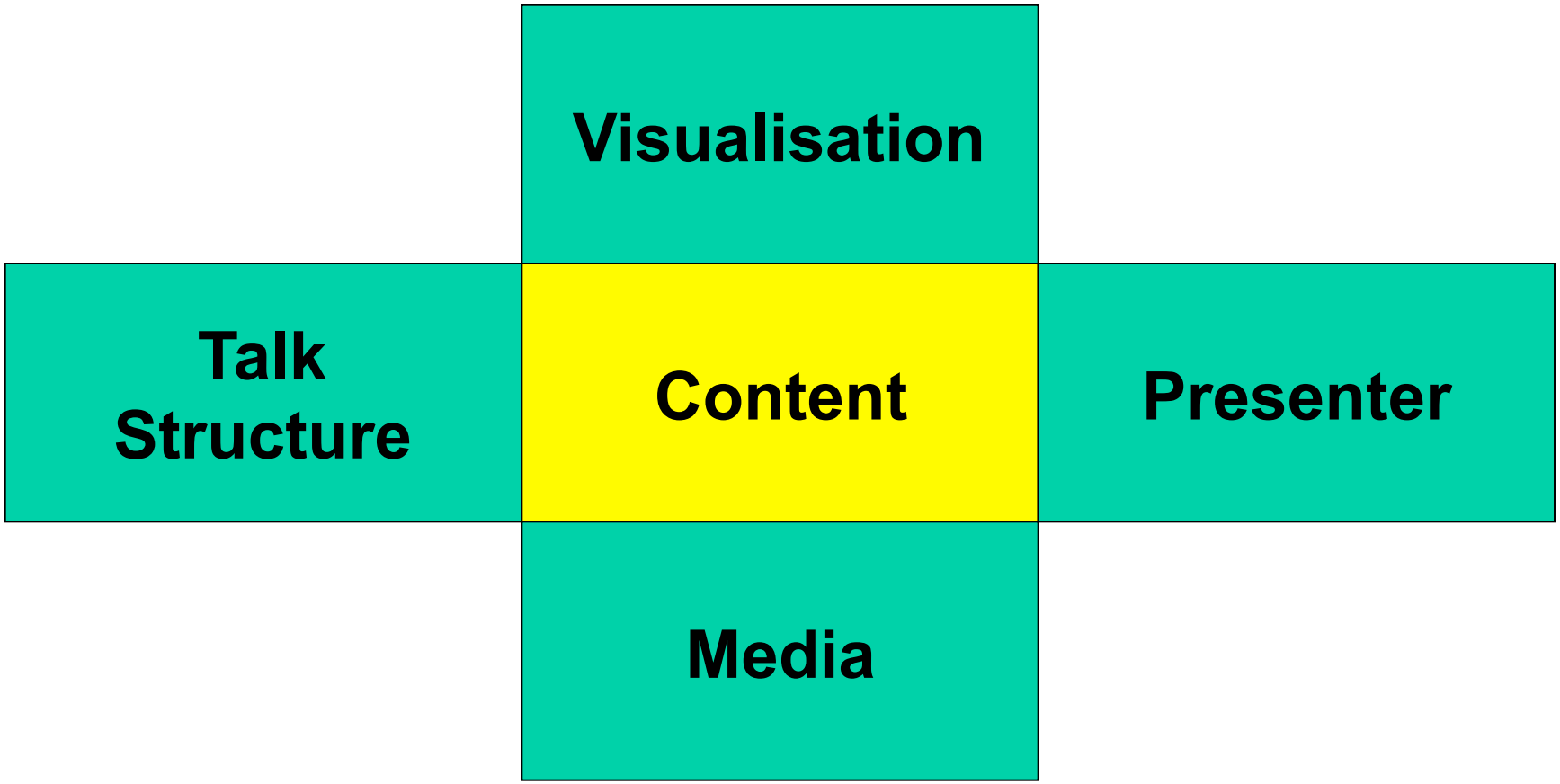
How to present your results?

Agenda:

Content **Structure** **Visualisation** **Presenter** **Media**

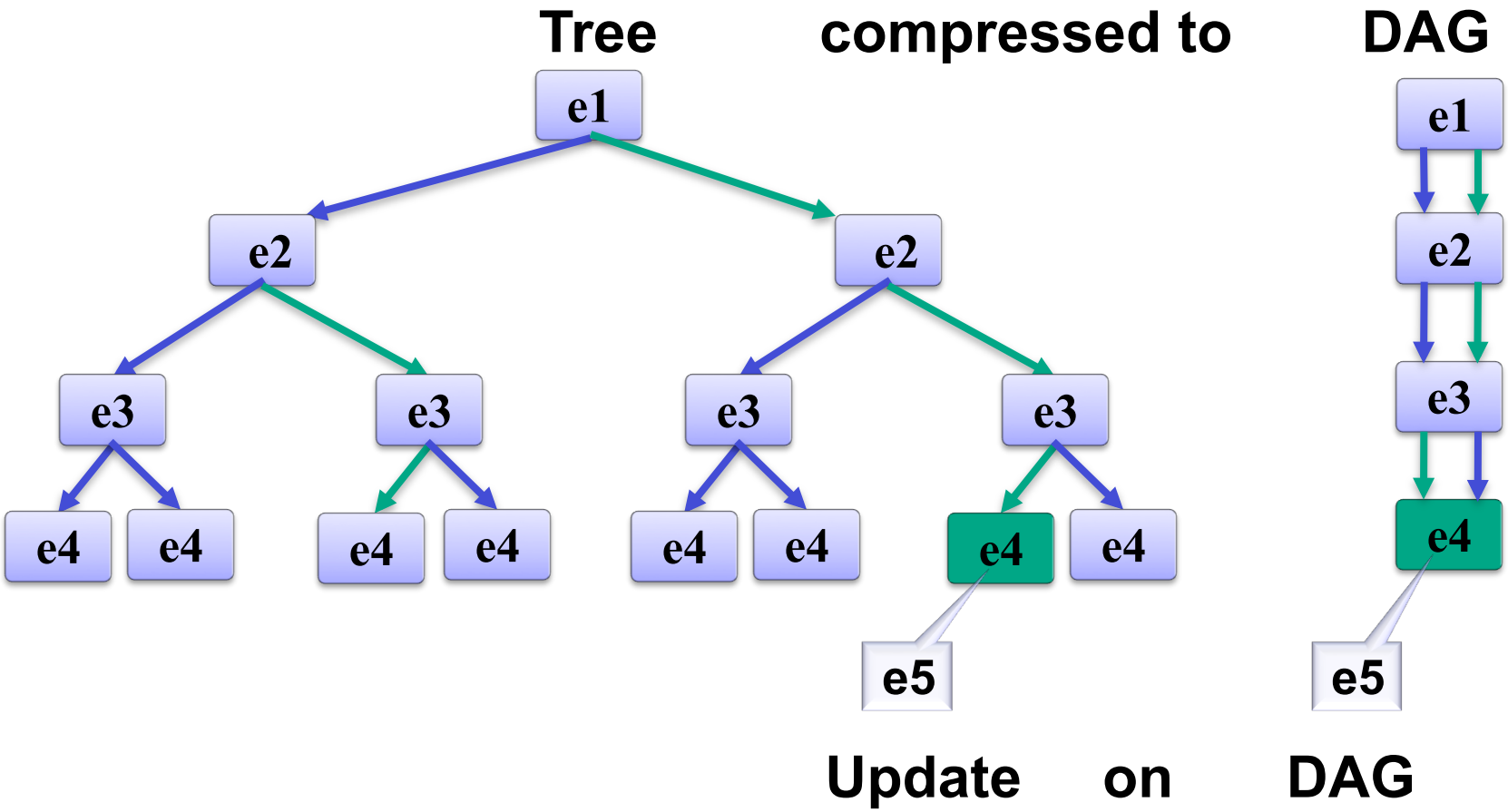
Challenges in Presentations



Content: choosing a good example

- **use the same example throughout the whole talk**
- **example shall explain key ideas**
- **minimize example (avoid superfluous parts of example)**
- **choose an intuitive (non-artificial) example**
- **explain how to generalize the example**

Motivate: using an example to describe the problem



Content: What exactly is the problem?

- **is the problem clearly enough defined ?**
  e.g. updates on DAG-compressed documents

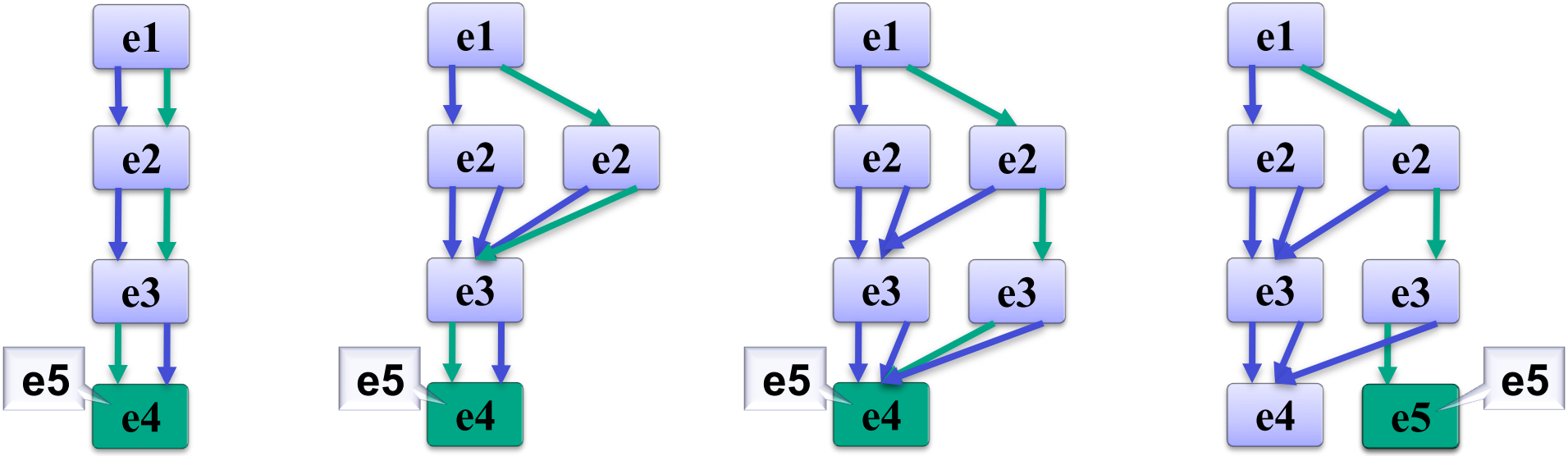
- **Which problem exactly do we solve (formalize it) ?**
  Given: a set of paths to nodes in DAG1,
  each of which shall be replaced with DAG2

- **Why is the problem definied like this (and not differently)?**
  general: allows inserting multiple nodes at a time
  allows multiple updates at a time

- **Which underlying assumptions are given?**
  both documents are DAGs, paths can be isolated, …

Present solution idea using the example

Path isolation



Content: Why this problem?

- **Why is the problem important? (Significance)**
- **Which benefit provides the solution ?**
- **What aspects of the problem are difficult?**

Content: Technical Depth

- **How exactly is it (defined) ?**
- **Why is it solved like this and not in a different way?**
- **Technical and mathematical details**
- **Completeness**
- **No errors**

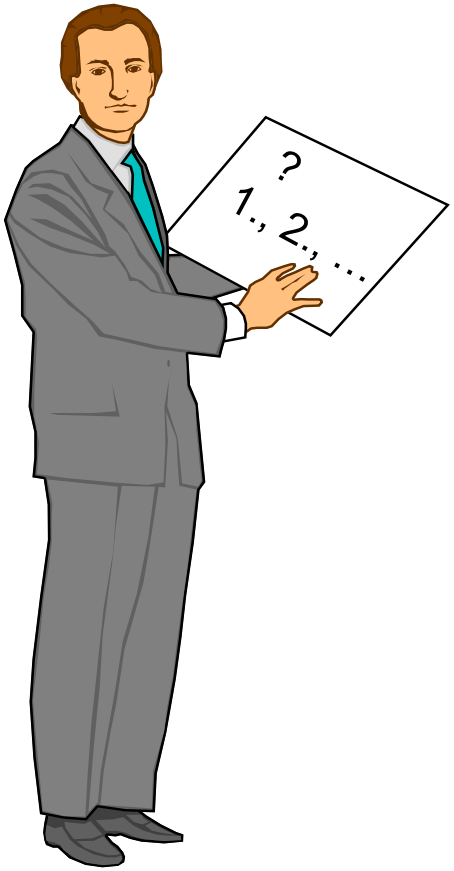
Content: limits of the solution

- **Under which preconditios does it work?**
- **Why is this precondition required? What is it needed for?**
- **Limits of the solution**
- **Which information is missing / is not given in the source (open ends / limits not being discussed) ?**

„Unnecessary“ Sildes

- **The history of …**
- **Unspecific introductions**
- **Pictures without relation to content (Decoration?)**
- **Things, not being told!**
  (e.g. program code, not being explained)
- **do not exceed time limits!**
  → select the most important information

Structure of the presentation



- **Motivate the topic**
- **Visualize the structure of your talk**
- **Present content as a sequence of pictures**
- **Summarize highlights**
- **Show open ends and possibilities for future research**

Structure: How to begin?

Goals:

Attention → **Welcome**
personal,
invitation to listen

Motivation →
- **A question**
- **Surprising news**
- **Joke regarding the topic**

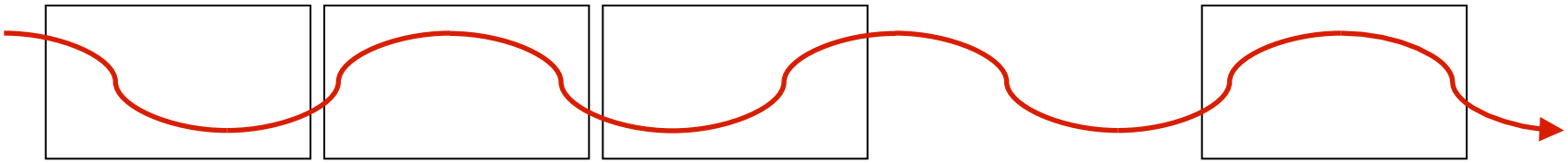
Logical structure: offer a visible outline

1. Motivate topic
2. Announce outline of the talk
3. Define problem
4. Structure and visualize the solution
5. Solution: figure 1, … , figure n
6. Summary of the highlights of the solution
7. Limitations of the solution

- Using the same example to explain all the aspects

Preparation of structure and content

- **Plan talk as a sequence of figures**



- **Delay decision which media to use when**
- **Sketch the sequence of arguments**
  - **Strongest arguments first and last**
- **Use technical language !**

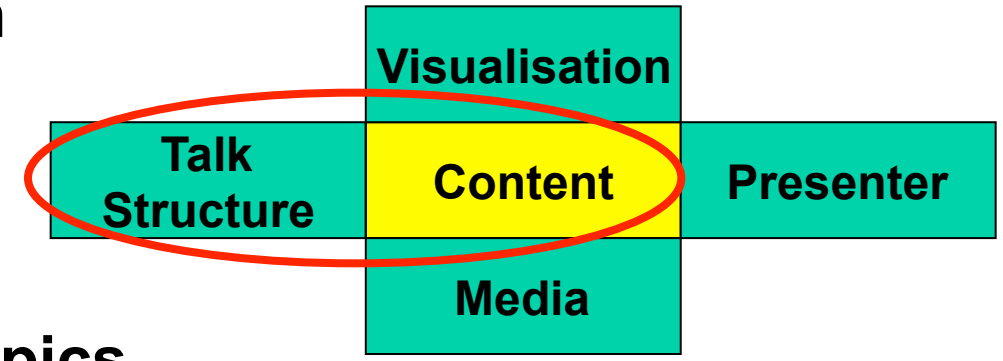
How to end ?

Return to problem definition

Summarize main results

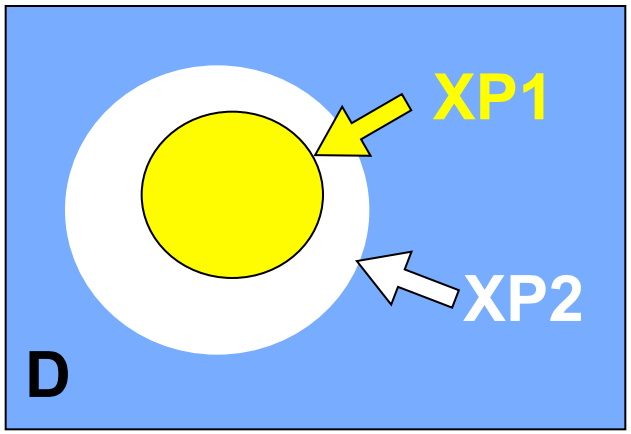
Outlook to open research topics

Motivate to do / decide / work …



Expressing ideas by figures

- **„A figure is more expressive than 1000 words“**
- **For each node returned by the query XP1 from an XML document D, there is an equivalent node returned by the query XP2 from the XML document D.**
- **XP1(D) ⊆ XP2(D)**



Visualisation – basic rules

- **Reduce complexity**
  - → **only the most important**
  - → **figures not self explanatory**

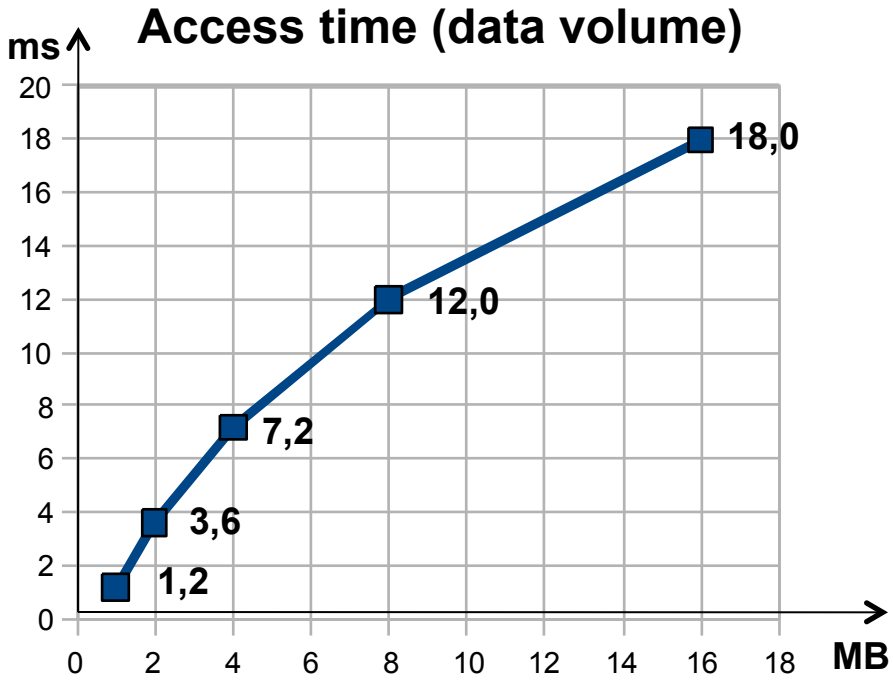
- **Unique choice of symbols, color, fonts**
  - → **explain semantics of color / fonts / …**

Lists

- **Never more than 6 x 6**
- **key words only – no full sentences**
- **one idea per item**
- **font size at least 24 pt**
- **But: figures much better than text !**

Presenting figures

- **Write down meaning of X-axis and Y-axes**
- **Units !**
- **few words**
- **Precise title**



- **Write down values directly in the figure**
- **Use horizontal caption for y-axis**

Presenter

- **Look at audience**
- **Short sentences**
- **Stop talking where useful**
- **Gesture**
- **Short distance to figures**
- **Do not cover presentation**
- **Keep time limits**

Being afraid

Typical for many presenters

- **Plan how to handle it**
  - → **walking around**
  - → **gesture**
- **Look at the audience**
- **practice , practice , practice !**

Prepare presentation

- **Regard time limits during all preparation steps**
- **Check technical devices (beamer and laptop)!**
- **Write on whiteboard / flipchart before the talk starts**
- **Prepare extra slides for critical questions**
- **Practice loud ! (multiple times)**
- **Ideally: 30 min preparation per minute of talk**

Presentation on Laptops

Typical weaknesses:

- **Not enough figures**
- **Too much information**
- **Fonts too small**
- **Too many slides**

Flipchart / Whiteboard (1)

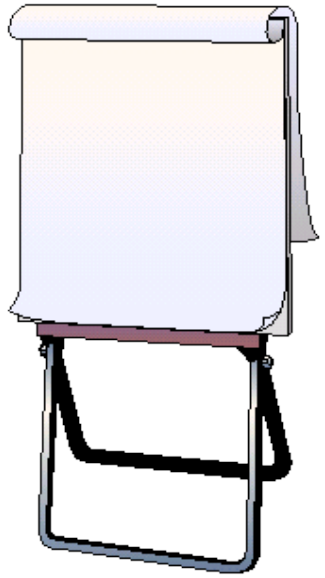
+ **prepare figures before your talk starts**

+ **develop figure during your talk**

  (→ check board markers)

+ **turn flipchart paper to show**

  (→ blanc intermediate pages)



Flipchart / Whiteboard (2)

+ **good for summaries of main results!**

  → **first show results using beamer**

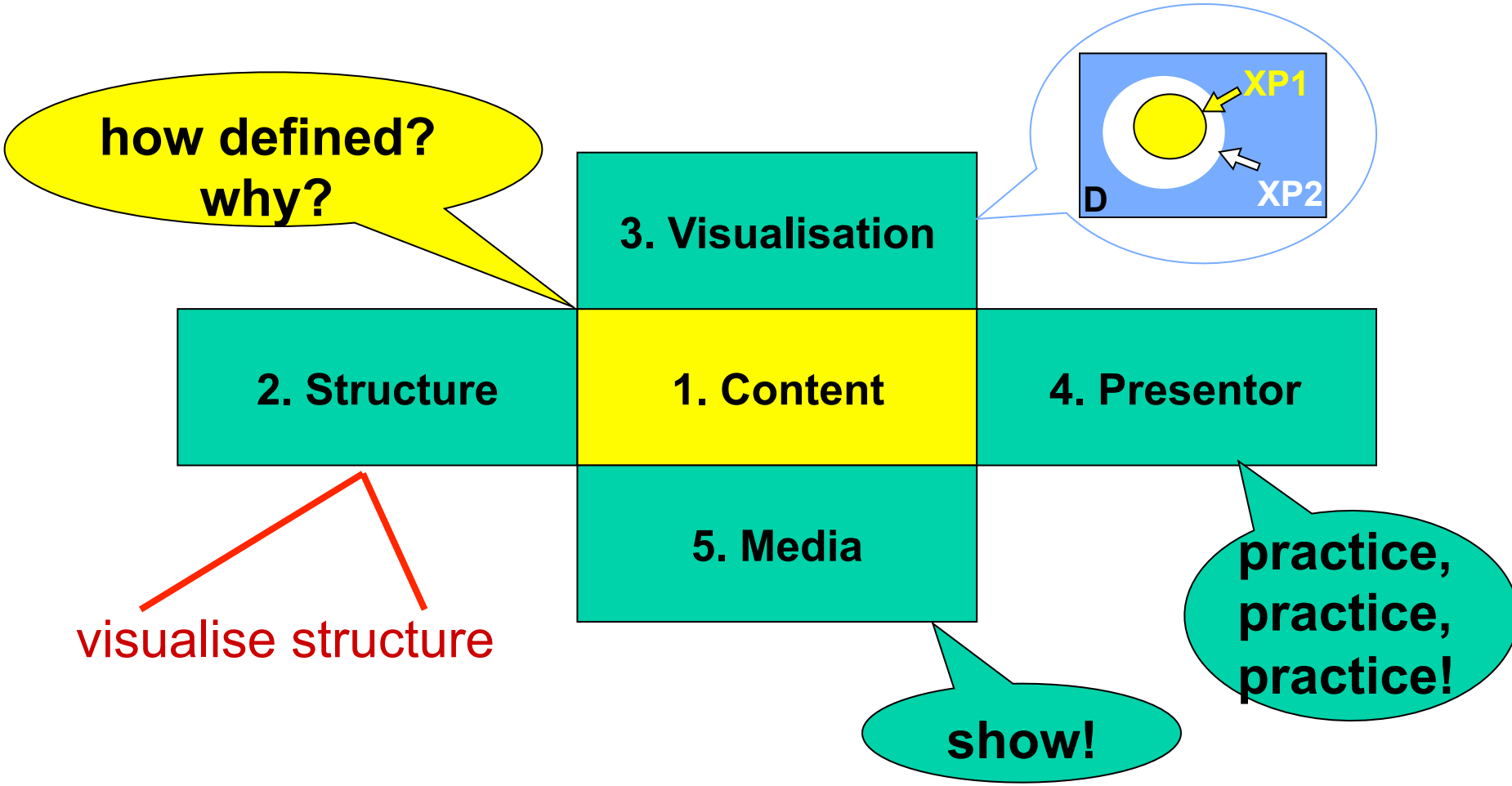
  → **announce, when beamer figure is also on whiteboard**

+ **good for developing examples**

  → **omit significant parts of the solution**

  → **fill holes with significant items during presentation**

How to prepare your presentations



Use these techniques!

Content **Structure** **Visualisation** **Presenter** **Media**