



**School of Applied Linguistics**  
ILC Institute of  
Language Competence

# Designing Effective Presentation Slides

Focussing on the Message

Zurich Universities of  
Applied Sciences and Arts



# Designing Effective Presentation Slides

In today's input you will learn

- how to design effective presentation slides
- how to make a lasting impression on your audience

by focussing on your **message** rather than your topic.

# The Assertion-Evidence Approach

The assertion-evidence approach is a presentation style first introduced by Penn State engineering professor and presentation expert Michael Alley.

The technique focuses on conveying clear messages that the audience will be able to remember, and makes use of simple, yet highly effective slides.

The ideas presented in these slides are based on Michael Alley's work (see [www.assertion-evidence.com](http://www.assertion-evidence.com)).

# The Assertion-Evidence Approach: Examples

## Task 1

Watch the introduction (-2:50) of Greg Schnur's presentation on Google's autonomous vehicle and answer the following questions:

- What techniques are used by the speaker?
- Describe their effect on the audience.
- How does his approach differ from the approach often used in our schools?

# The Assertion-Evidence Approach: Examples

## Task 1

Techniques used:

- starts with specific example underlined by pictures
- tries to personalize the topic
- simplifies data by drawing comparison with relatable experience
- expands specific example with more general data
- uses very few, uncluttered slides (too few?)
- introduces himself and presentation topic after 1.5 minutes
- slides carry messages
- explains structure of presentation by means of pictures
- explains what will be covered and points not considered
- holds eye contact with audience consistently

# The Assertion-Evidence Approach: Examples

## Task 1

Effect on audience

- mostly concentrated
- mostly focussed on the speaker

# The Assertion-Evidence Approach: Examples

## Task 1

Approach often used in our schools

- focus on topic, not message
- introduction to topic without "bait" or specific examples
- often without personalization
- use of notes / reading from longer text
- use of bullet points
- ....

# The Assertion-Evidence Approach: Examples

## Task 2

Now watch some other examples of presentations using the assertion-device approach on <https://www.assertion-evidence.com/more-model-presentations.html>, e.g. [Kirk Santure's presentation](#) on autonomous driving vehicles. Take notes on the techniques and language used. Afterwards, discuss your findings with a partner.



# The Assertion-Evidence Approach: Examples

## Task 2

### Techniques:

- starts with emotional example
- uses this to describe problem he wants to talk about (and possible solutions, i.e. autonomous cars)
- follows with facts and figures
- introduces himself a few minutes into the presentation
- overview of topic / structure of presentation, including limitations
- effective visualization, scarce use of figures
- strong eye contact
- calm voice
- even pace
- supportive gestures
- use of questions to involve the audience

# The Assertion-Evidence Approach: Examples

## Task 2

Language:

- *Let me set the scene:....*
- *“problem” → “solution”*
- *not only... but also*
- *according to....*
- *....x deaths. Of these x deaths, ...*
- *So, how can we...?*
- *So, what is...?*
- *I want to start off with....*
- *Next, I want to...*
- *And lastly, I want to talk about....*
- *There are two limitations....*

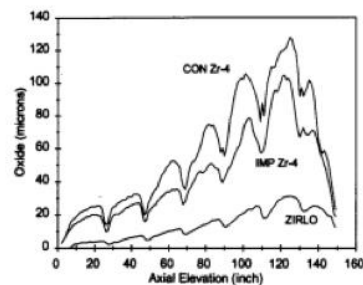
# Designing Visuals

## Task 3

Look at the slide below. What are the three main problems with slides?

### Corrosion and Hydriding

- Different alloys have different in-reactor corrosion rates and consequently different degrees of hydriding and degradation of mechanical properties
- => **benefit of designing good alloy** (e.g. M5 (Framatome) and ZIRLO (W) have better corrosion properties than Zircaloy)



Sabol et al. Portland 1997

Oxidation measured  
by weight gain

Hydrides are brittle and  
can severely degrade  
cladding ductility

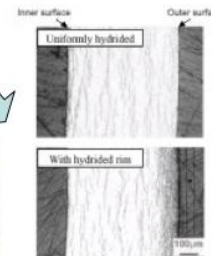


Fig. 15 Morphology of hydrided samples

# Designing Visuals

## Task 3

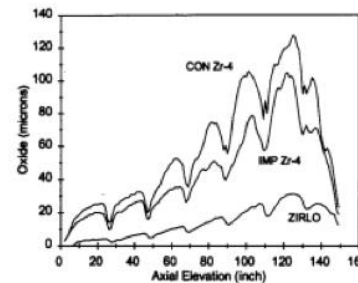
Too many words

Cluttered – not sure what to look at

Much text not readable

### Corrosion and Hydriding

- Different alloys have different in-reactor corrosion rates and consequently different degrees of hydriding and degradation of mechanical properties
- $\Rightarrow$  **benefit of designing good alloy** (e.g. M5 (Framatome) and ZIRLO (W) have better corrosion properties than Zircaloy)



Sabol et al. Portland 1997

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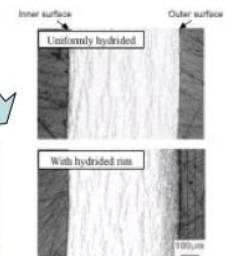
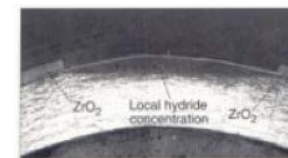
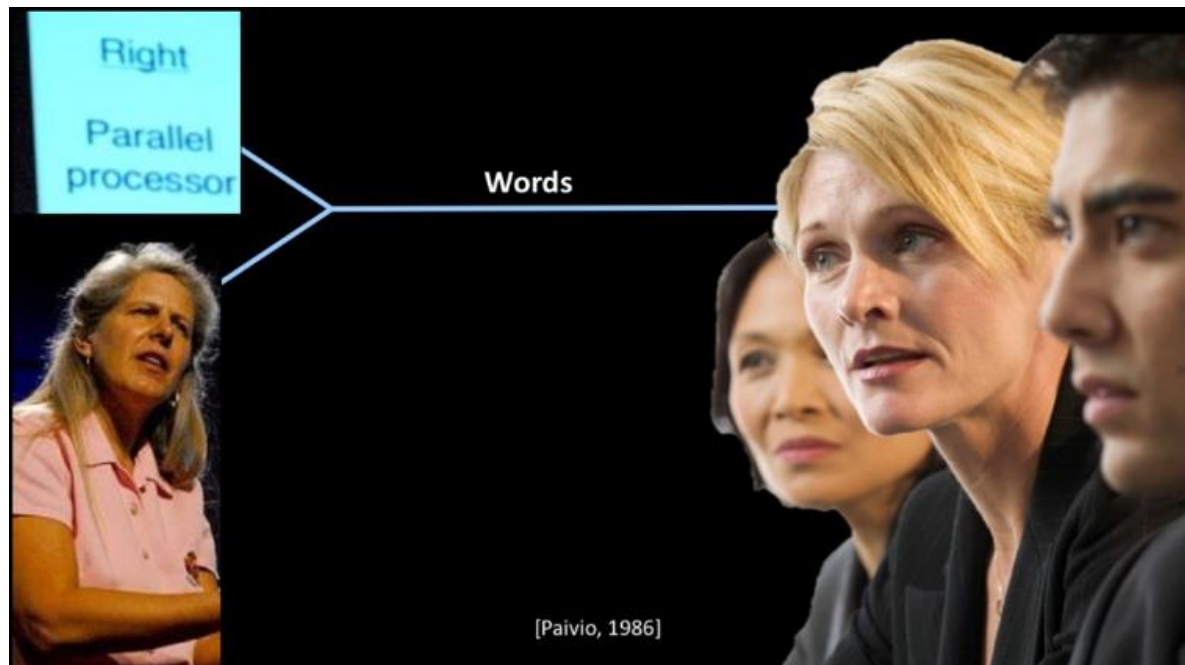


Fig. 15 Morphology of hydrided samples

(<https://vimeo.com/385725081>)

# Designing Visuals: What Research Has Found

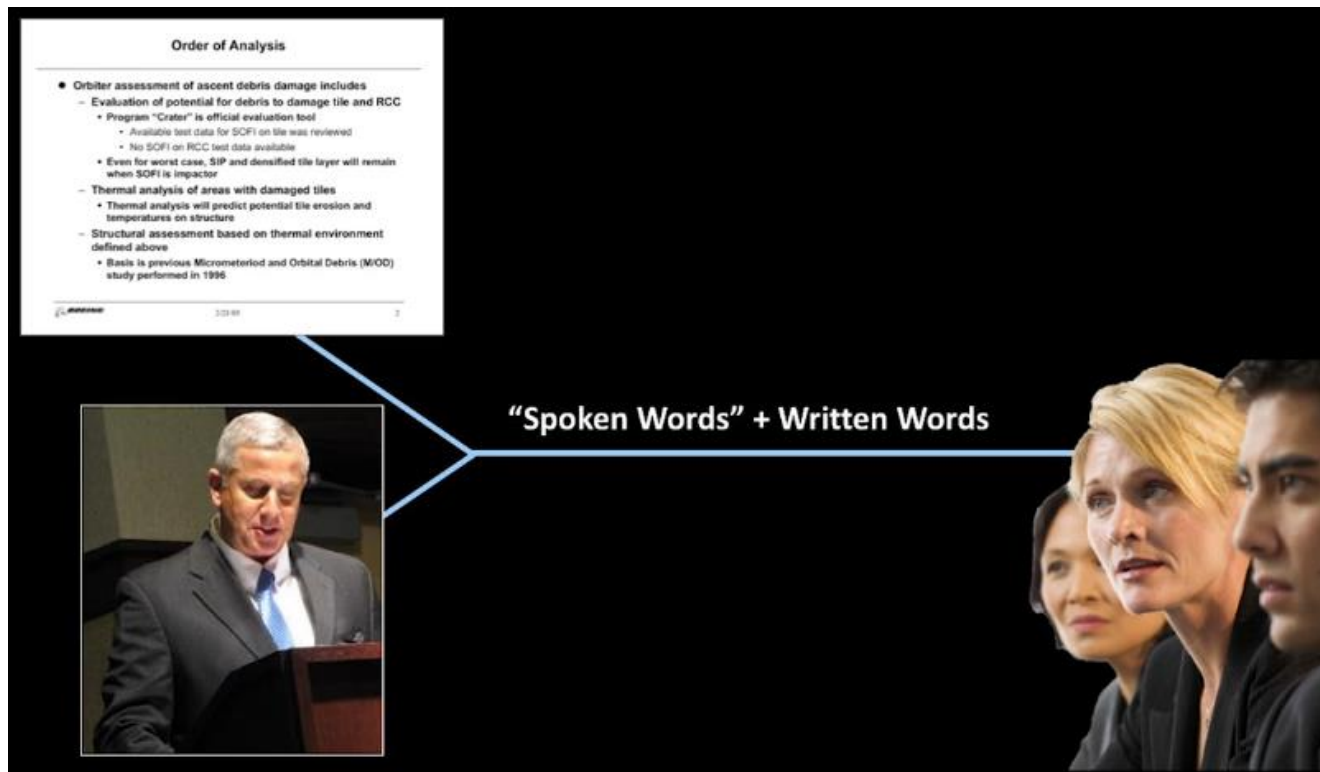
The psychology researcher Allan Paivio found that both **written words** and **spoken words** are processed in the same part of the brain.



(<https://vimeo.com/385729603>)

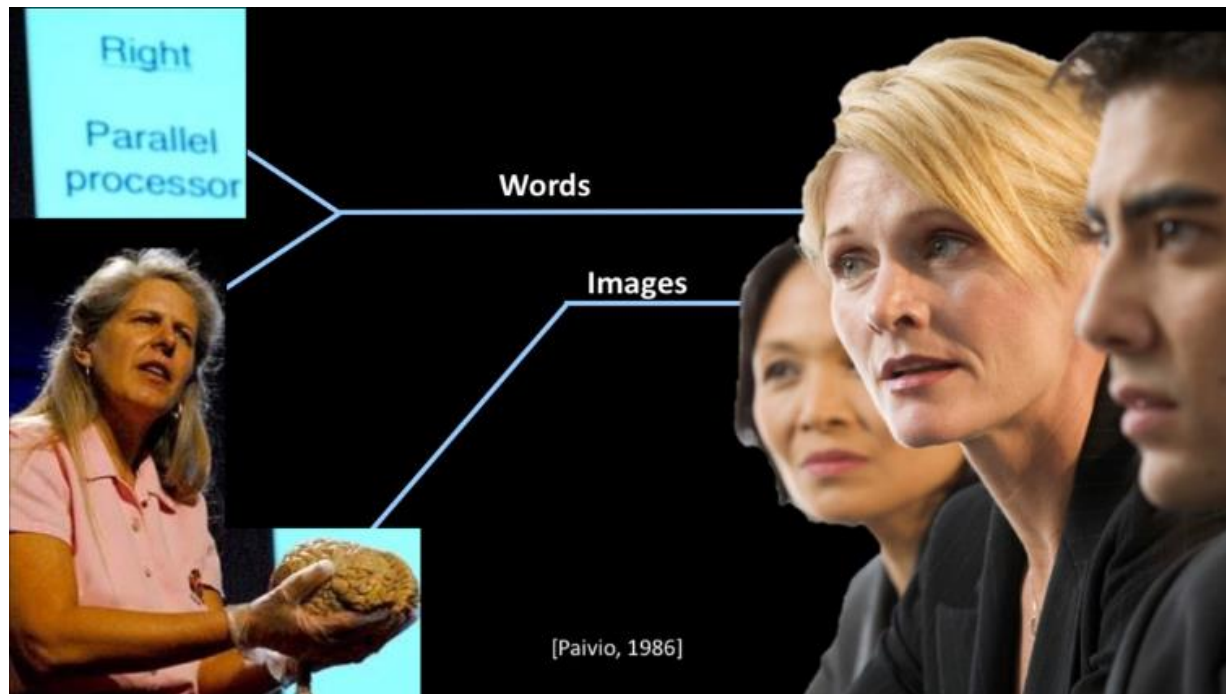
# Designing Visuals: What Research Has Found

Having to process spoken and written words simultaneously leads to a dramatic drop in comprehension and is worse than if no slide was shown.



# Designing Visuals: What Research Has Found

Paivio also found that **images** are processed in a different part of the brain.



(<https://vimeo.com/385729603>)

# Designing Visuals: What Research Has Found

This suggests that you can readily process images while someone is speaking.

Further research has shown that audiences learn more deeply from words **and** relevant images combined than from words alone.



# Designing Visuals: The Three Principles

1. Build your talk on messages (= assertions), not topics.
2. Support your messages with visual evidence, not bullet points.
3. Fashion your sentences on the spot, but after planning and practice.

# Designing Visuals: The Three Principles

## Build Your Talk on Messages

What is the **main message** (not topic!) you want your audience to take away from your slide?

Write your message

- in the form of a **full sentence**
- no longer than two lines.

# Designing Visuals: The Three Principles

## Support Your Message with Visual Evidence

What **visual evidence** (not bullet points!) would best support your message?

You might choose a

- graph
- table
- drawing
- photograph
- video

# Designing Visuals: The Three Principles

## Support Your Message with Visual Evidence

Only use a slide if it helps the audience to help

- understand
- remember or
- believe

the content of your talk.

If this is not the case, use a blank screen.

# Designing Visuals: The Three Principles

## Fashion Your Sentences on the Spot

How do you want to express your message orally and explain the evidence?

Not reading from bullet points or notes allows you to

- maintain eye contact with your audience
- use your evidence to guide you through your talk
- focus on the message
- come across as more confident

# Designing Visuals: The Three Principles

## Fashion Your Sentences on the Spot

The key to fashioning your sentences on the spot is

- focusing on your message
- making a good choice for your visual evidence
- understanding your visual evidence
- practicing but not memorizing your talk

# Designing Visuals: Example

## Task 4

Watch Michael Alley's instructions on how to use the three principles:

- Build your talk on messages, not topics
- Support messages with visual evidence
- Fashion sentences on the spot (but after practice)

# Designing Visuals: Formulating the Message

## Task 5

Study the figures on the following slides, and change the **topic headings** into take-away messages.

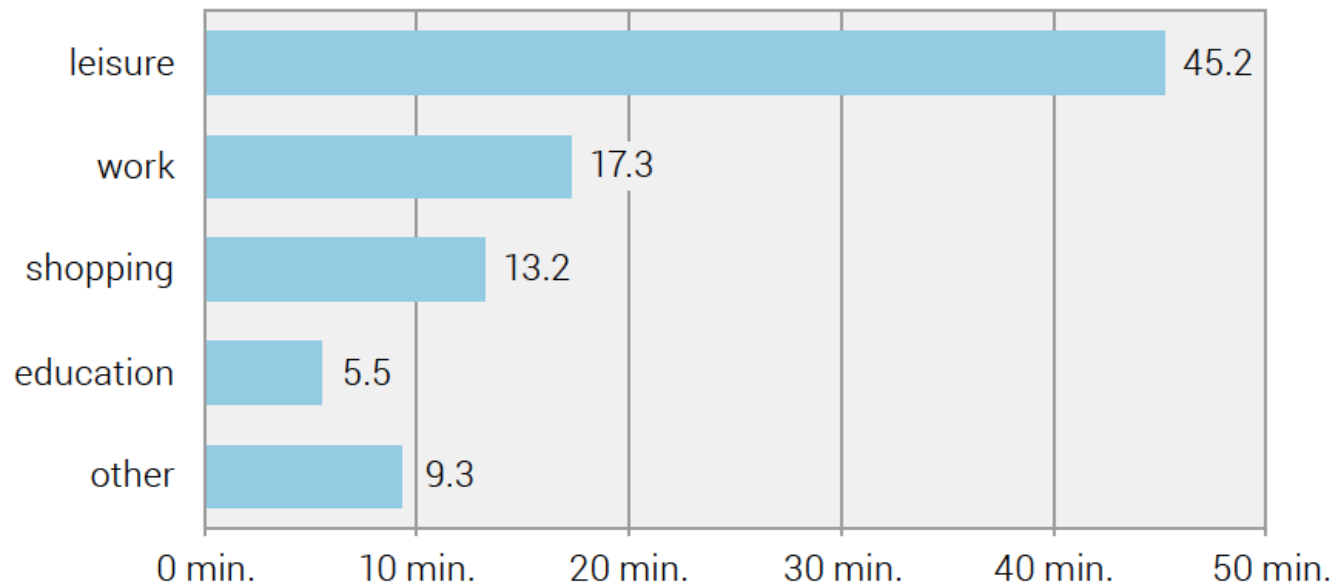
(Based on “Mobility and Transport Pocket Statistics 2019”:  
<https://www.bfs.admin.ch/bfs/en/home/statistics/mobility-transport.assetdetail.9146814.html>)



# Designing Visuals: Formulating the Message

## Task 5: Example 1

### Reasons for Using Transportation



Note: status in 2015, only distances in Switzerland, base = resident population aged 6 or over

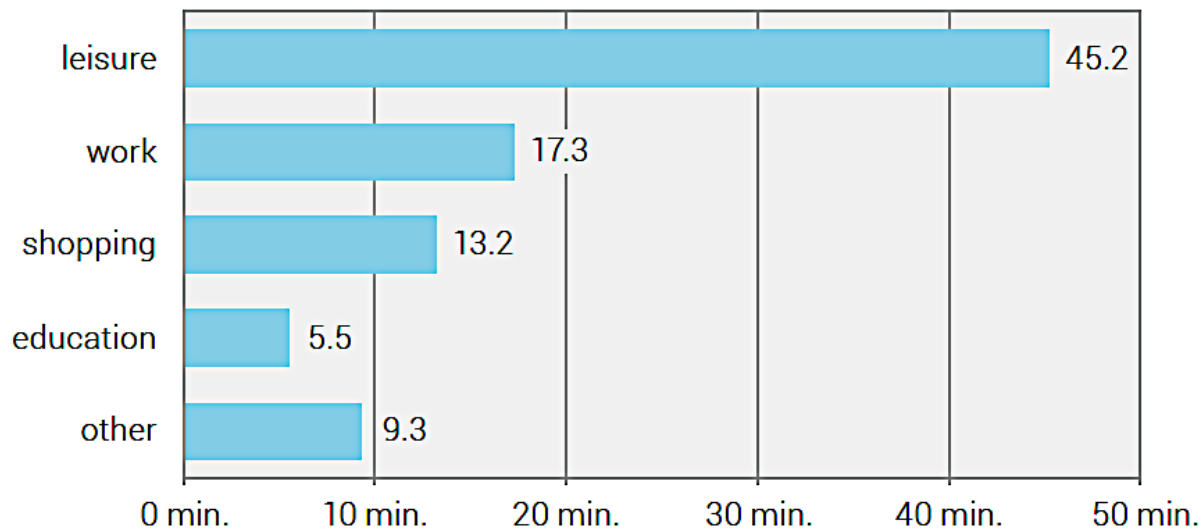
# Designing Visuals: Formulating the Message

## Task 5: Example 1

**The Swiss population spends  
90 minutes in transport every day**



This includes 8 minutes of waiting and transfer time.  
Leisure is by far the main trip purpose.



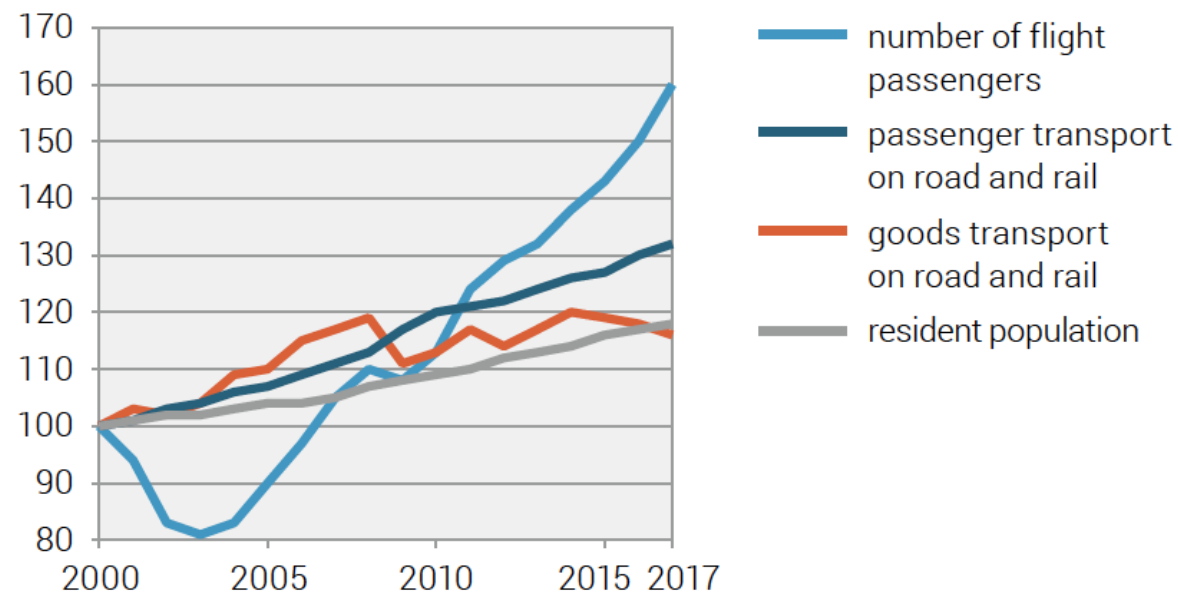
Note: status in 2015, only distances in Switzerland, base = resident population aged 6 or over

# Designing Visuals: Formulating the Message

## Task 5: Example 2

### Development of Transportation

Evolution index, 2000 = 100



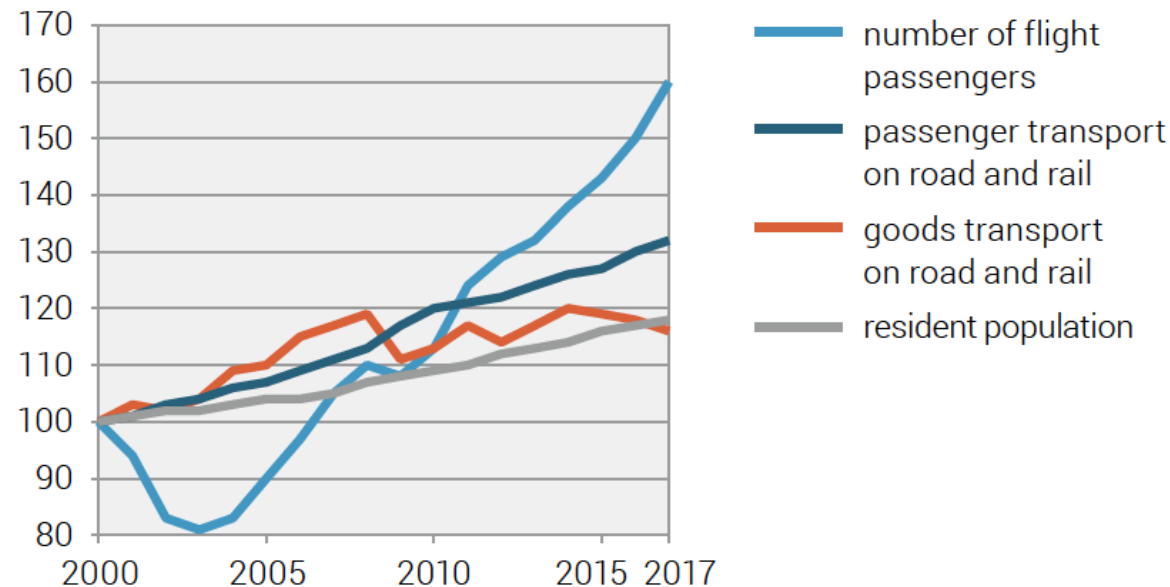
Note: base passenger transport=person-km, base goods transport=tonne-km

# Designing Visuals: Formulating the Message

## Task 5: Example 2

### Passenger transport is growing faster than the population

Evolution index, 2000 = 100



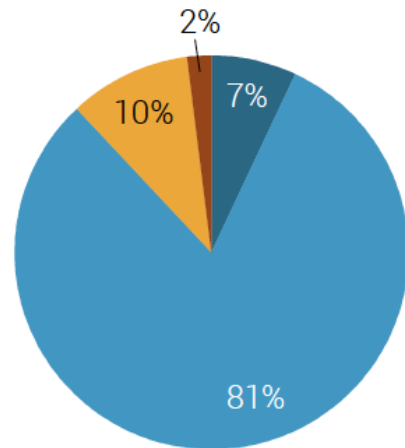
Note: base passenger transport=person-km, base goods transport=tonne-km

# Designing Visuals: Formulating the Message

## Task 5: Example 3

### Transportation Infrastructure

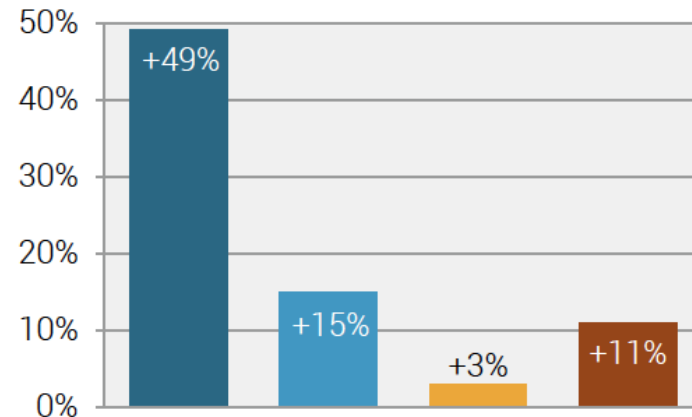
Transportation area  
according to survey 2004/09



Total: 952 km<sup>2</sup>



Increase  
since survey 1979/85

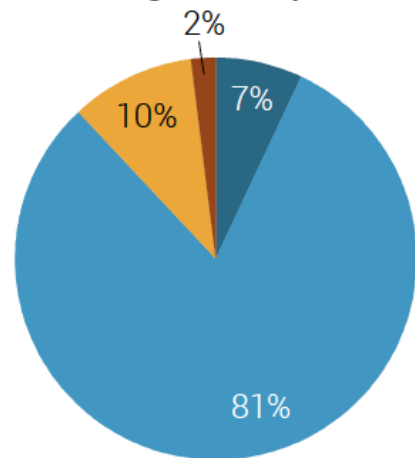


# Designing Visuals: Formulating the Message

## Task 5: Example 3

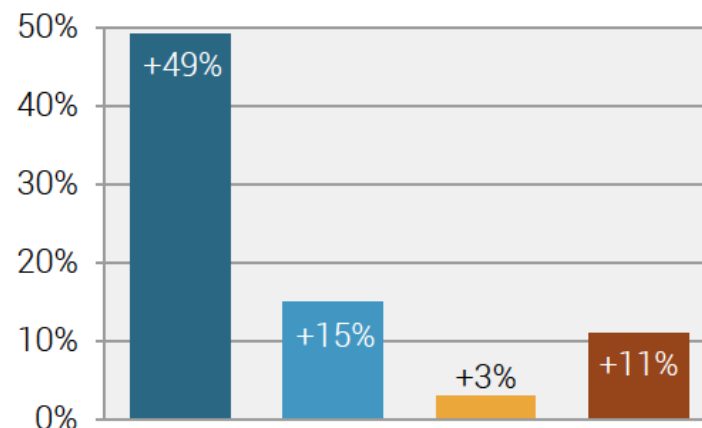
Transport infrastructure covers  
an area the size of the canton of Thurgau

Transportation area  
according to survey 2004/09



Total: 952 km<sup>2</sup>

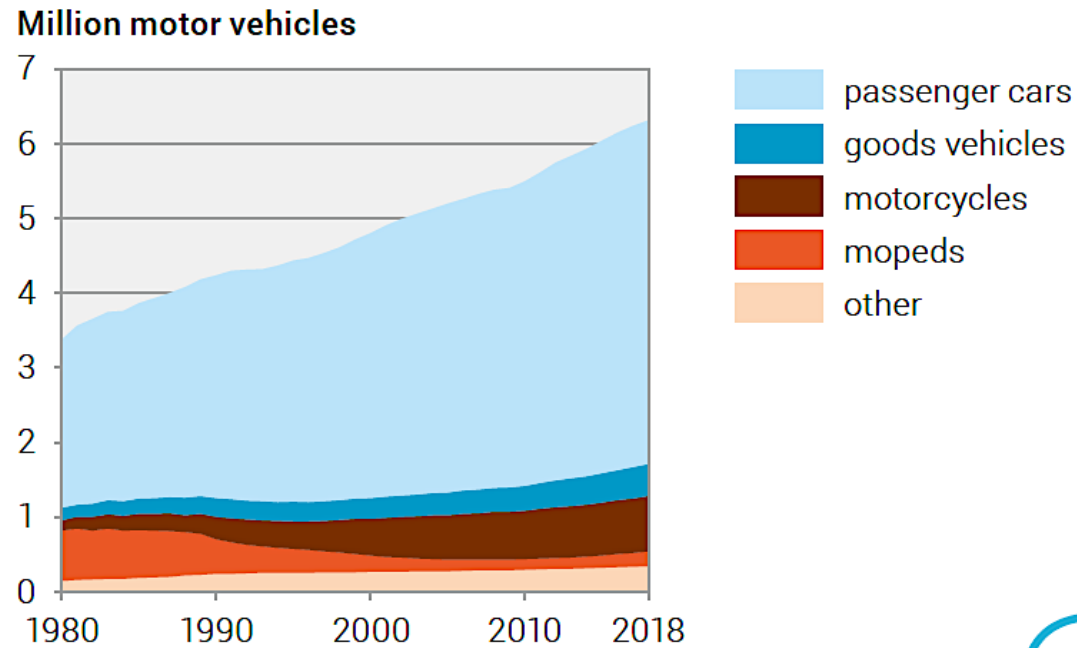
Increase  
since survey 1979/85



# Designing Visuals: Formulating the Message

## Task 5: Example 4

### Number of Motor Vehicles



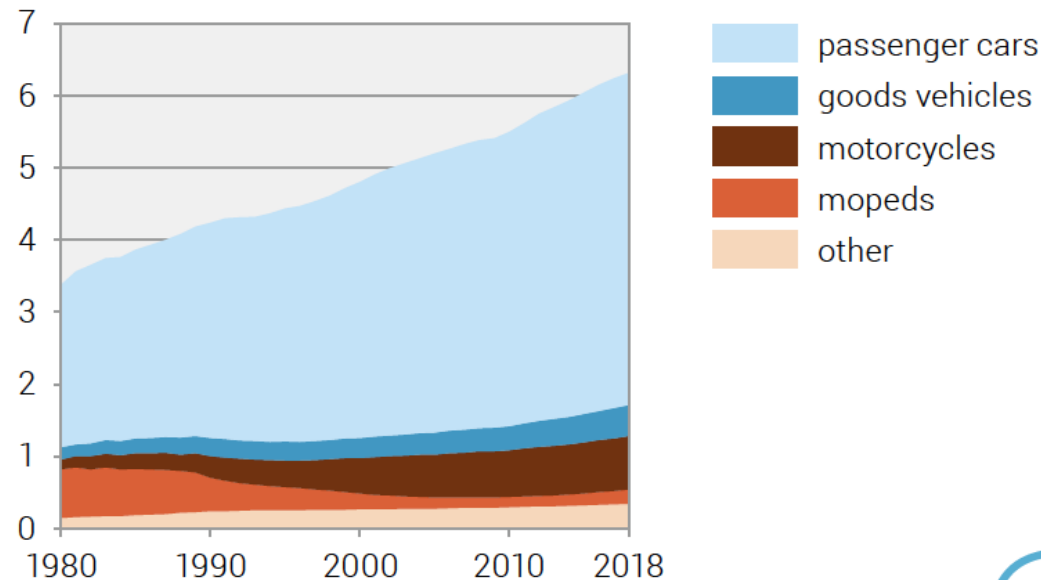
# Designing Visuals: Formulating the Message

## Task 5: Example 4

**There are more than 6 million motor vehicles on Swiss roads**

4.6 million of these are cars – twice as many as there were in 1980.  
65% of households have a bicycle, 7% an e-bike (in 2015).

Million motor vehicles

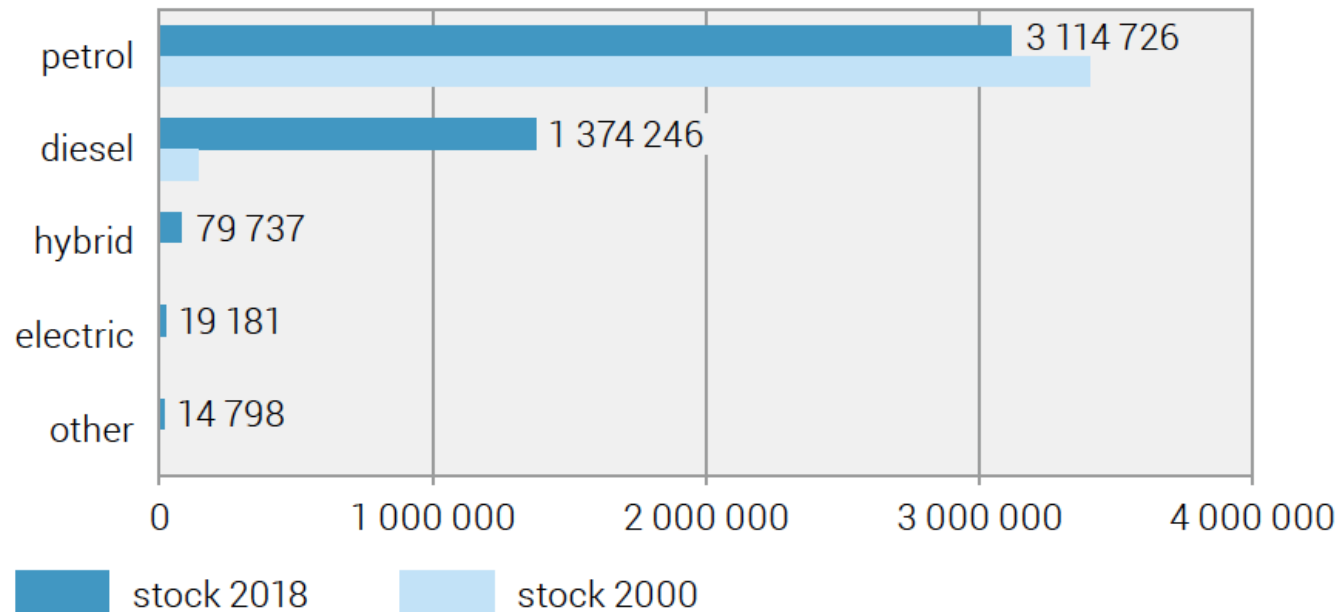




# Designing Visuals: Formulating the Message

## Task 5: Example 5

### Types of Passenger Cars Based on Fuel

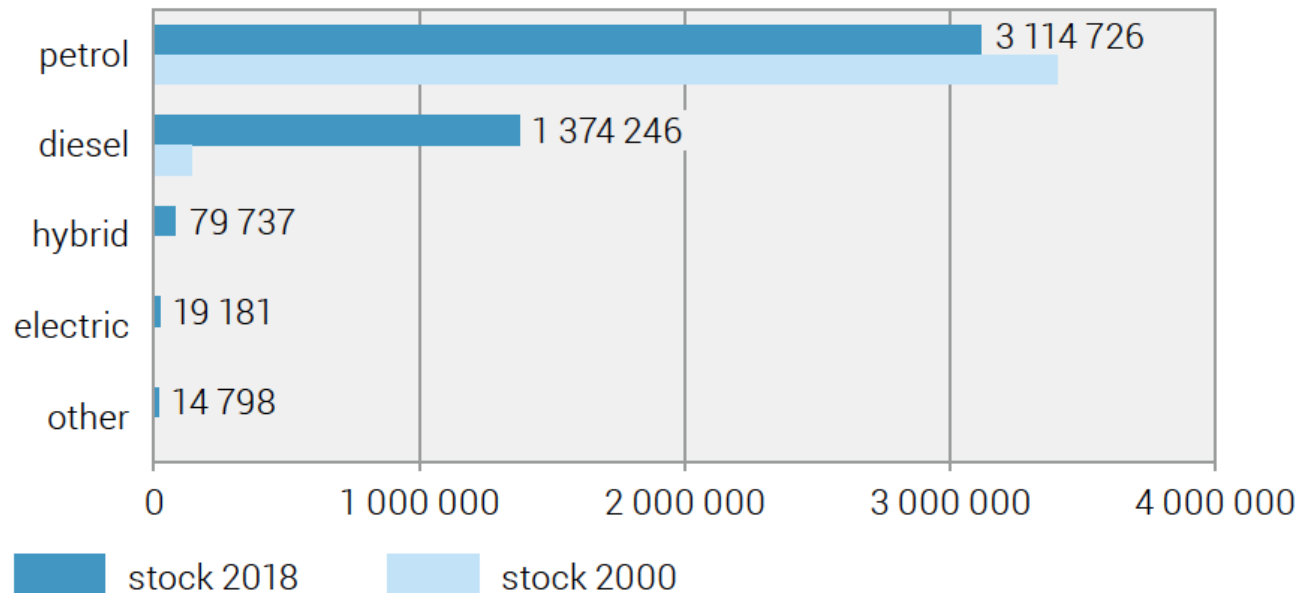


# Designing Visuals: Formulating the Message

## Task 5: Example 5



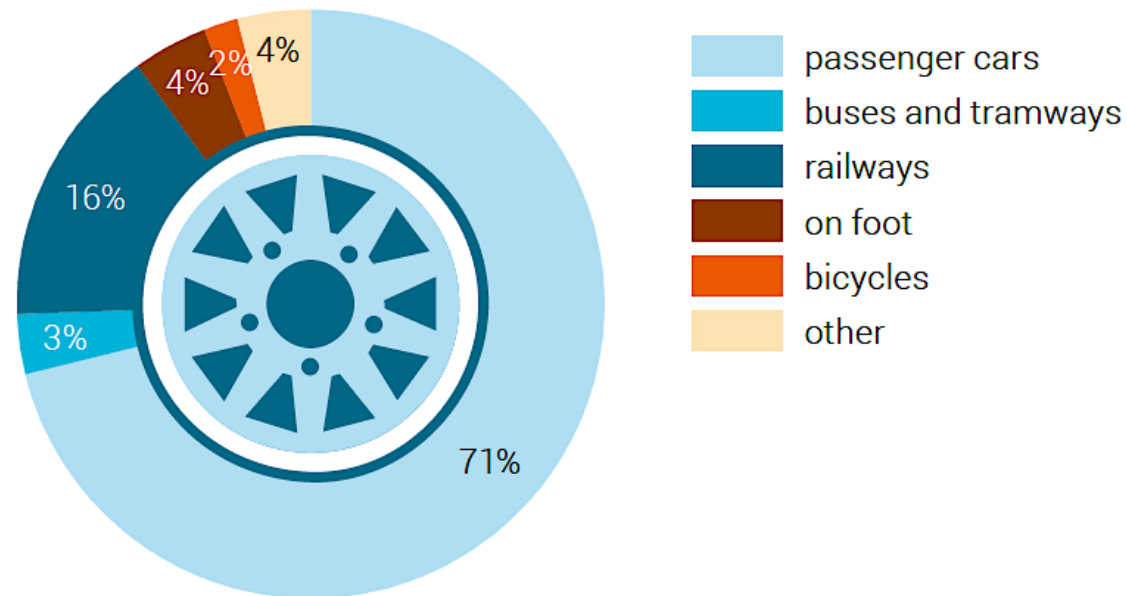
**Passenger cars: Diesel cars have gained ground, but petrol cars still remain in the majority**



# Designing Visuals: Formulating the Message

## Task 5: Example 6

### Means of Passenger Transport



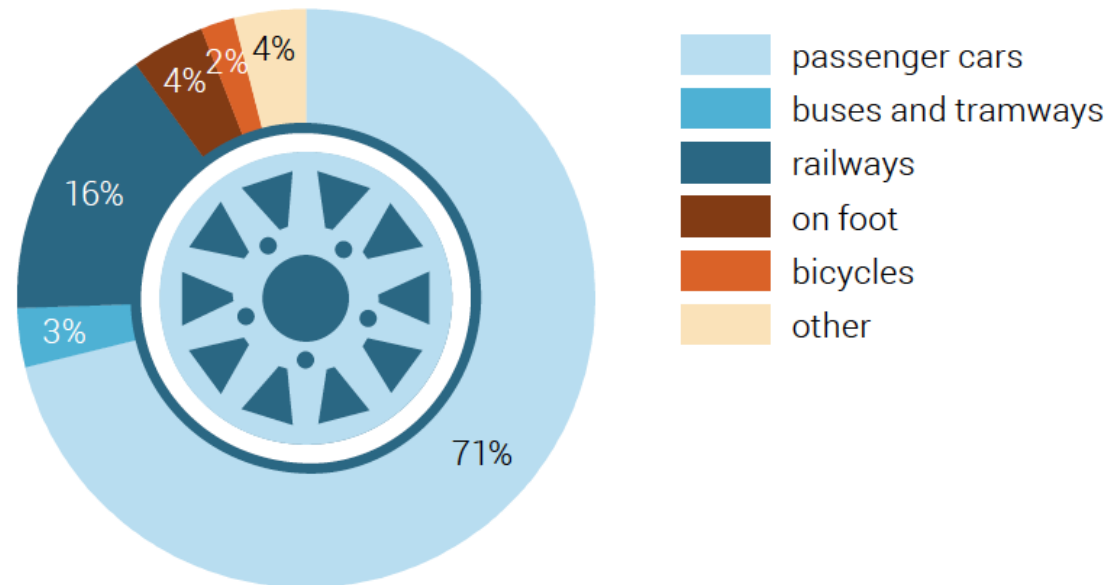
# Designing Visuals: Formulating the Message

## Task 5: Example 6

### Cars dominate passenger transport

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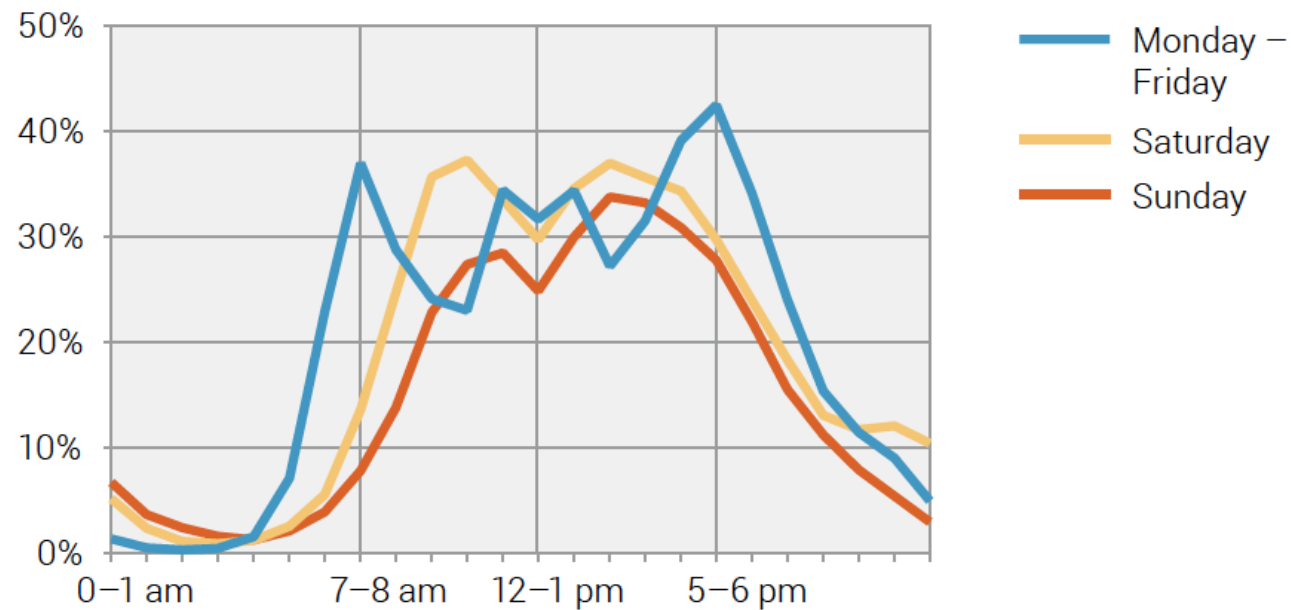
Shares of means of transport in the person-kilometres covered  
(by road and rail, 2017)



# Designing Visuals: Formulating the Message

## Task 5: Example 7

### Time When Population Is on the Move

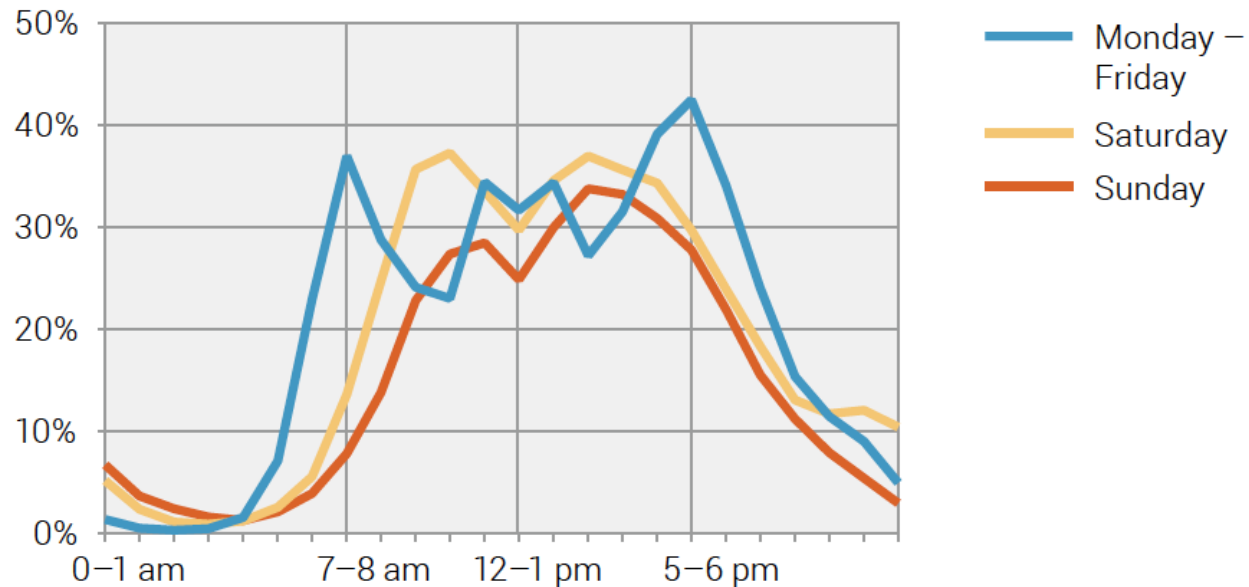


# Designing Visuals: Formulating the Message

## Task 5: Example 7

Transport reaches its peak during the week  
between 5 and 6 pm

Share of the population on the move; 2015 (in Switzerland)

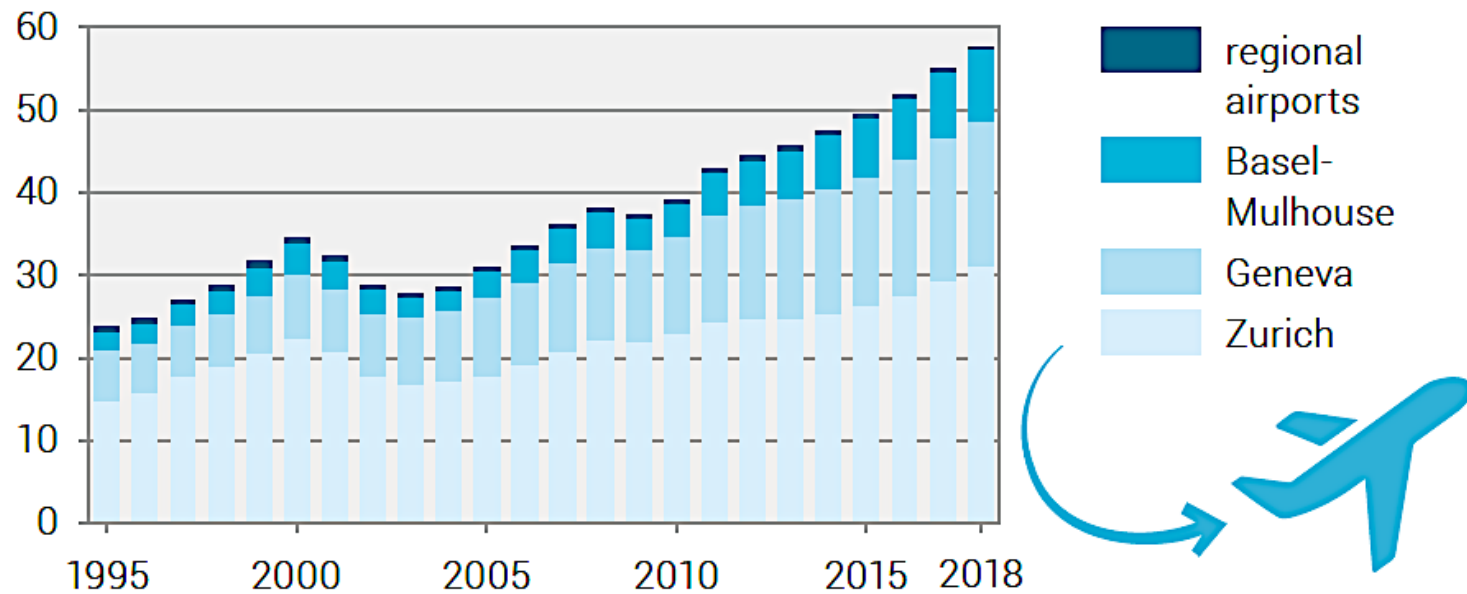


# Designing Visuals: Formulating the Message

## Task 5: Example 8

### Passenger Numbers in Air Transport

Millions of arriving and departing passengers

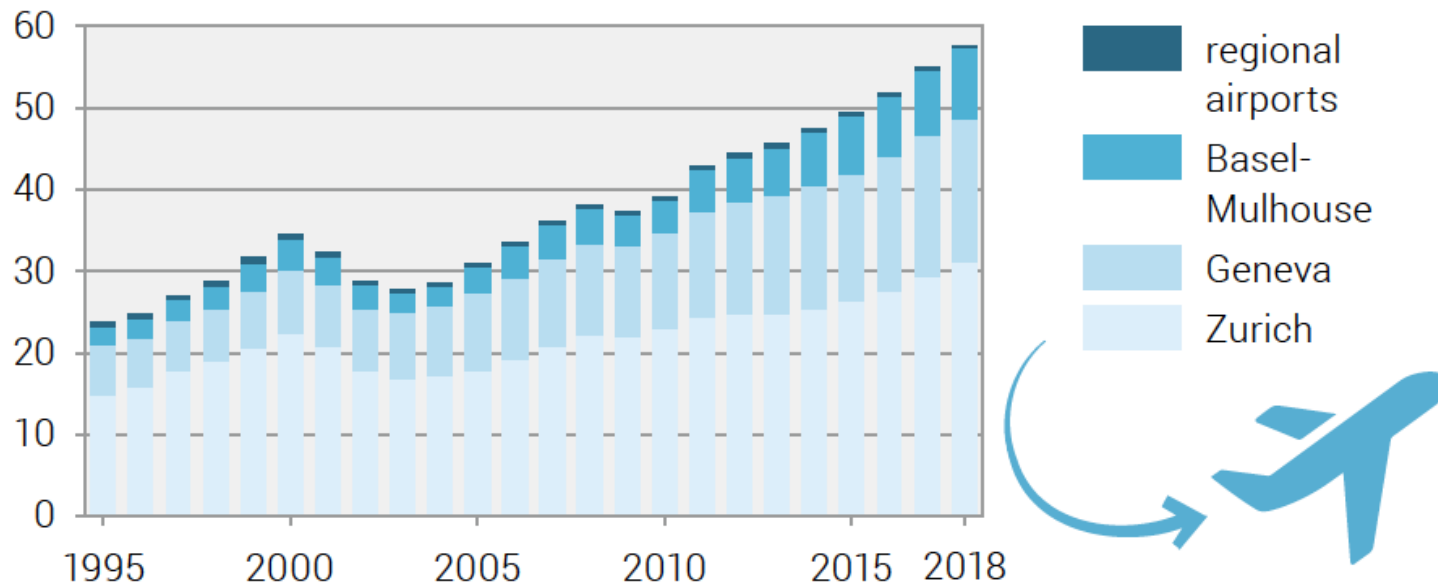


# Designing Visuals: Formulating the Message

## Task 5: Example 8

### Passenger numbers in air transport continue to increase

Millions of arriving and departing passengers

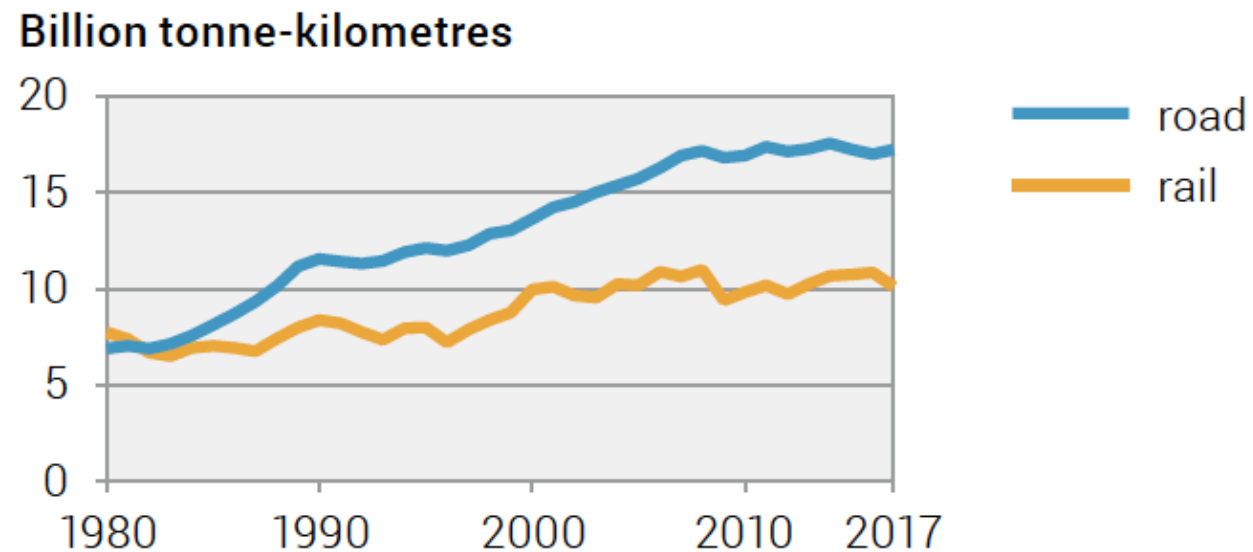




# Designing Visuals: Formulating the Message

## Task 5: Example 9

### Development of Goods Transport



# Designing Visuals: Formulating the Message

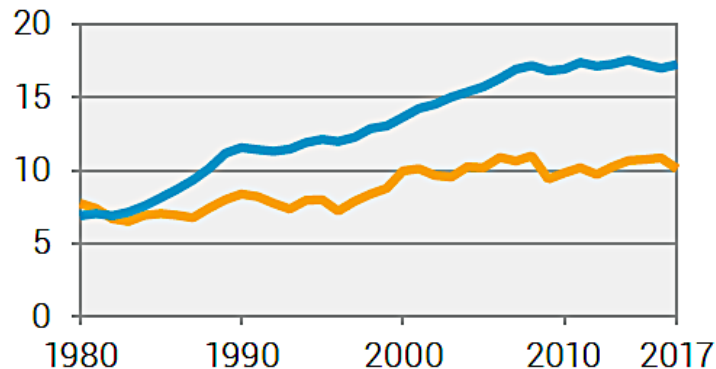
## Task 5: Example 9

### Goods transport has almost doubled since 1980

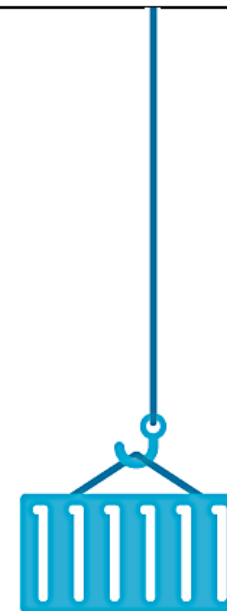
63% of transport performance is by road, 37% by rail.

Domestic transport dominates road transport (63% of tonne-kilometres), and transit trips dominate rail transport (63%).

**Billion tonne-kilometres**



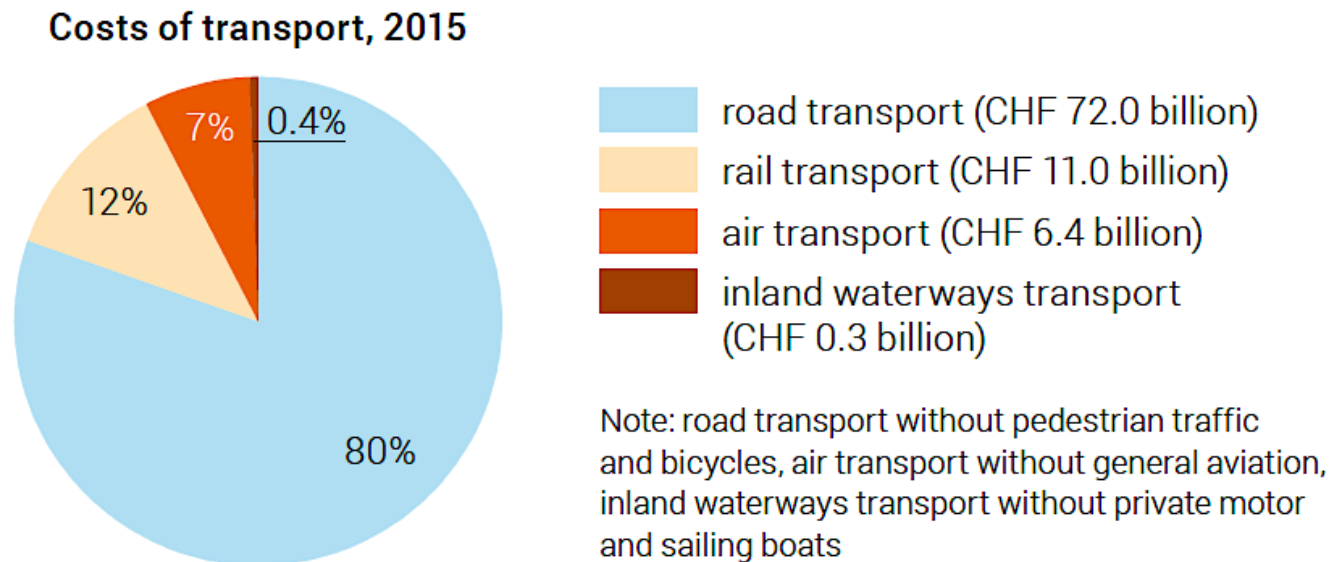
— road  
— rail



# Designing Visuals: Formulating the Message

## Task 5: Example 10

### Transportation Costs



# Designing Visuals: Formulating the Message

## Task 5: Example 10

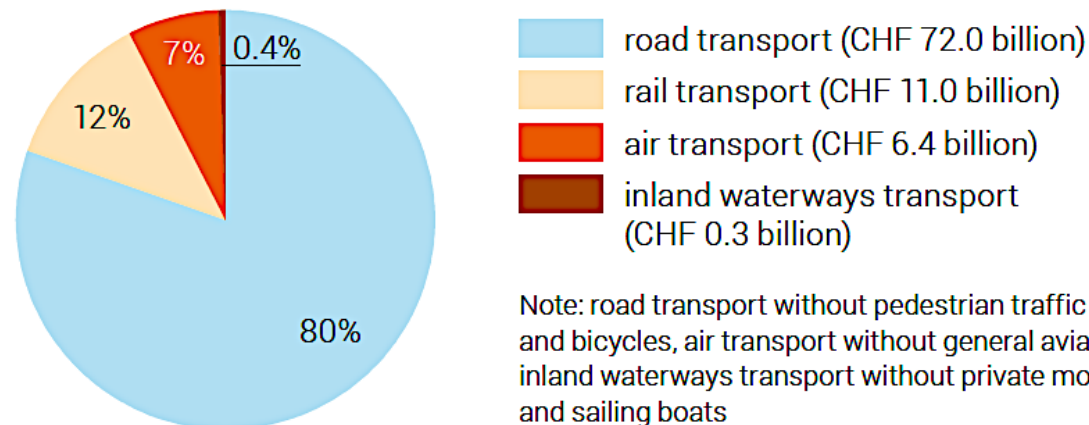
### Transport costs CHF 90 billion

77% of costs are generated by passenger transport,  
23% by goods transport.

Between 2010 and 2015, costs increased by 4%.



#### Costs of transport, 2015



Note: road transport without pedestrian traffic and bicycles, air transport without general aviation, inland waterways transport without private motor and sailing boats

# Designing Visuals: Formulating the Message

## Task 6

- Take an old presentation of yours and adjust the slides according to the assertion-evidence approach.
- Share your work with another student and discuss the changes.

# The Assertion-Evidence Approach: Additional Material

For additional information on the assertion-evidence approach as well as examples, see:

- [www.assertion-evidence.com](http://www.assertion-evidence.com)
- [www.assertion-evidence.com/tutorial.html](http://www.assertion-evidence.com/tutorial.html)
- [www.assertion-evidence.com/models.html](http://www.assertion-evidence.com/models.html)