

School of Engineering

Engineering Business Skills -
Presenting Information

Presenting a case

The 5 Basic rules

There are five rules which will help improve your effectiveness

- ☐ Be prepared
 - ☐ Be precise
 - ☐ Be convincing
 - ☐ Be in control
 - ☐ Be helpful
-

Presenting a case

Be prepared

- Define your objective
 - Are you trying to communicate facts or influence opinion?
 - Are you reporting back
 - Are you recommending future action (or both)
-

Presenting a case

Be prepared

☐ Analyse your audience

- Who will they be ?
 - What will they already know ?
 - What will their opinions, attitudes be ?
 - Supportive, hostile or neutral ?
 - How can your facts and arguments be related to their knowledge and opinions ?
 - What will they understand ?
 - How many will there be ?
-

Presenting a case

Be prepared

- ☐ Analyse your subject
 - What is the purpose ?
 - What is the scope of your subject ?
 - How much time do you have ?
 - Collect and classify material
 - ☐ Vital
 - ☐ Important
 - ☐ Desirable
-

Presenting a case

Be prepared

- ☐ Organise your material
 - Draft an outline
 - Note the sources of your facts
 - What can help you communicate?
 - ☐ Visual aids
 - ☐ Models
 - ☐ Examples
 - Develop your outline structure
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Presenting a case preparation Structures

Basic 'classic' approach

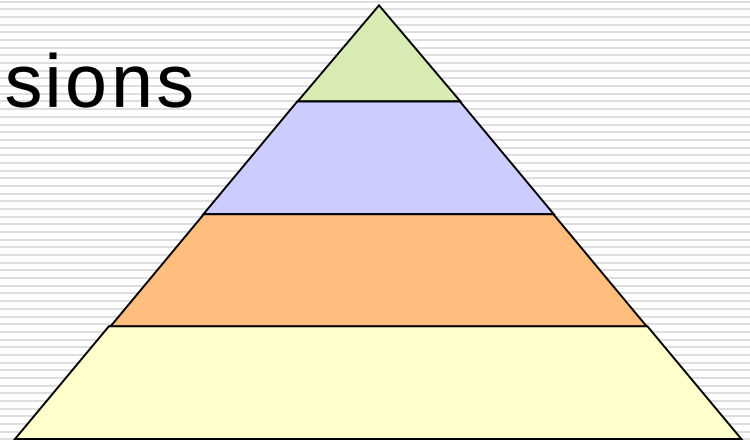
- Tell them what you are going to tell them
 - Provides a framework for the audience
 - Tell them stuff
 - Fill in the gaps outlined in your frame work
 - Tell them what you've told them
 - Provides a summary
 - Emphasises conclusions
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Presenting a case- preparation

Structures for interested audience

The pyramid

- ☐ Give reasons
- ☐ Provide arguments
- ☐ Build up to the conclusions

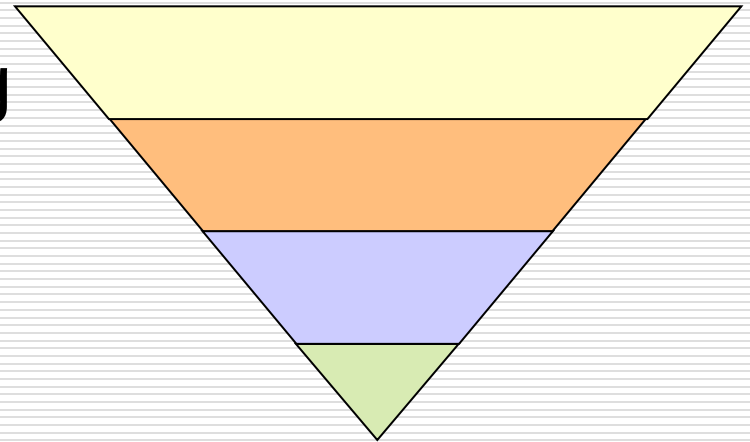


Presenting a case- preparation

Structures for uninterested audience

The inverted pyramid

- ☐ Begin with the conclusion
- ☐ Provide arguments
- ☐ Justify your reasoning

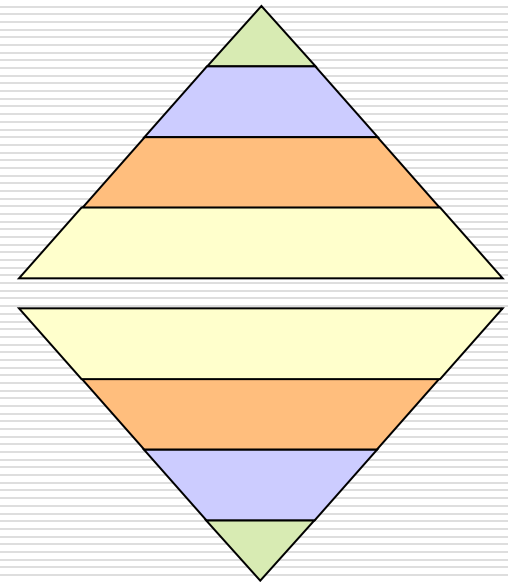


Presenting a case- preparation

Structures for hostile audience

The double pyramid - diamond

- ☐ Build a rapport
- ☐ Give some reasons
- ☐ Give the conclusion
- ☐ Maintain rapport
- ☐ Give more reasons
- ☐ Substantiate conclusion
- ☐ Maintain rapport



Presenting a case

Be precise

- Choose the right style
 - For the audience
 - For the subject
 - For the occasion
 - Technical terms/content
 - Use technical terms/jargon, TLA's with care
 - Explain any unusual concepts or terms
 - Title and label figures and diagrams
-

Presenting a case

Be precise

☐ Delivery

- Accuracy and clarity
- Appropriate language
- Economy – short is best

☐ Oral v written reporting

- A written report can be read several times
 - A presentation must be understood then, at one hearing
 - Therefore an oral presentation can have a different style
-

Presenting a case

Be precise

- An oral presentation can utilise :
 - Shorter sentences
 - Fewer technical and numerical terms
 - More superlatives for emphasis
 - More repetition
 - More humour (if appropriate)
 - More colloquial, non-standard words
-

Presenting a case

Be convincing

- ❑ Facts and arguments
 - Arrange in a logical order
 - Lead the audience from what they know to what you want them to learn
 - Or from current viewpoint to the views you want them to adopt
 - ❑ Clearly illustrate the points you wish to make
 - ❑ Let the audience hear your conviction
 - ❑ Be modestly confident
 - ❑ Look people in the eye
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Presenting a case

Be in control

- ☐ Ensure you can follow your notes
 - ☐ Ensure all equipment is there and that you can operate it
 - ☐ Ensure you can be heard and seen from all parts of the room
 - ☐ Talk to the audience, don't read
 - ☐ Avoid hecklers/disruptions –questions later
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Presenting a case

Be helpful – to self and audience

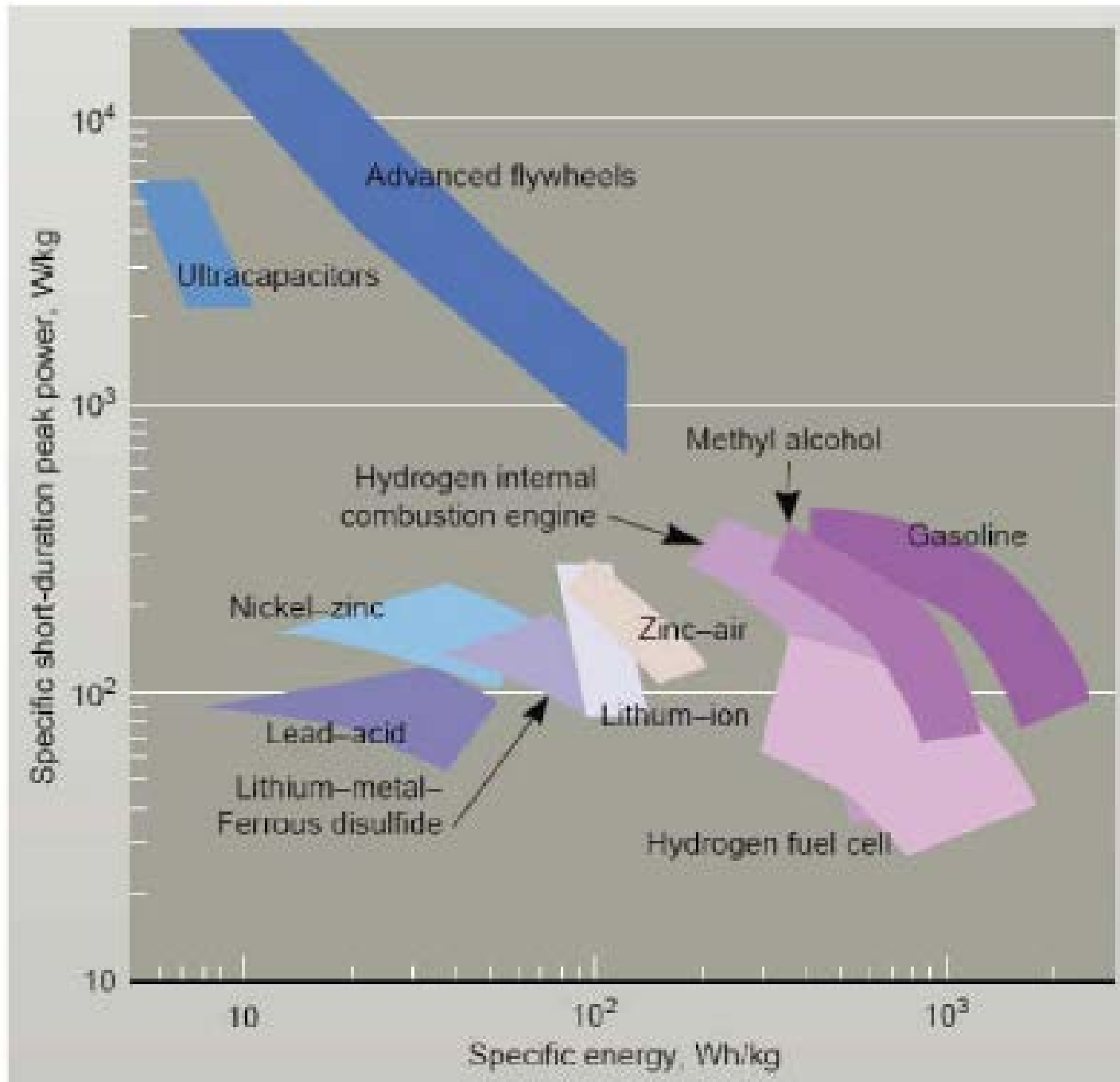
- ☐ Suppress signs of tension - irritating
 - Fidgeting
 - Mannerisms
 - ☐ Good preparation should give you confidence
 - ☐ A little tension will keep you alert
 - ☐ Appearance of confidence will reassure the audience
 - ☐ Concentrate on the/your audience
 - Watch the audience for signs of comprehension
 - Or signs of boredom/dis-attachment
 - ☐ Unwanted distractions will tend to disappear
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Clarity of Technical Information

Alternative energy storage systems

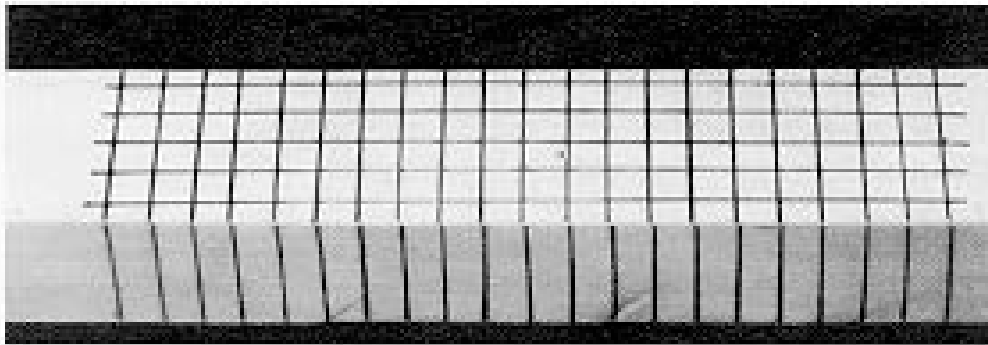
Energy Storage Device	Energy Density	Power Density
	Wh/kg	kW/kg
Lithium Ion	150-200	1
NiMH	<100	0.8
Zebra	~90	~0.2
Bipolar Lead Acid	30	
Super Capacitors	5	<5
Lithium Ion Polymer	100 to 155	0.1 – 0.3

Energy Storage Device	Energy Density	Power Density
	Wh/kg	kW/kg
Flywheel	10	~ 4
Liquid N2	215	
Air at 300 bar	180	
H2	33,500	
Gasoline	12,000	

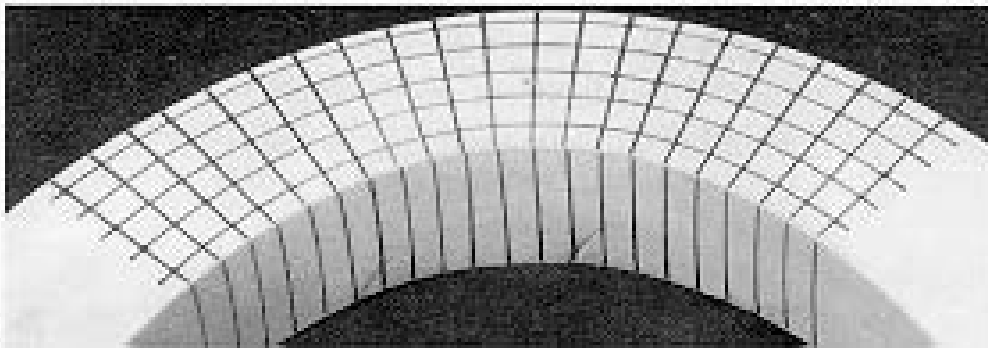


Stress and Strain - Linear

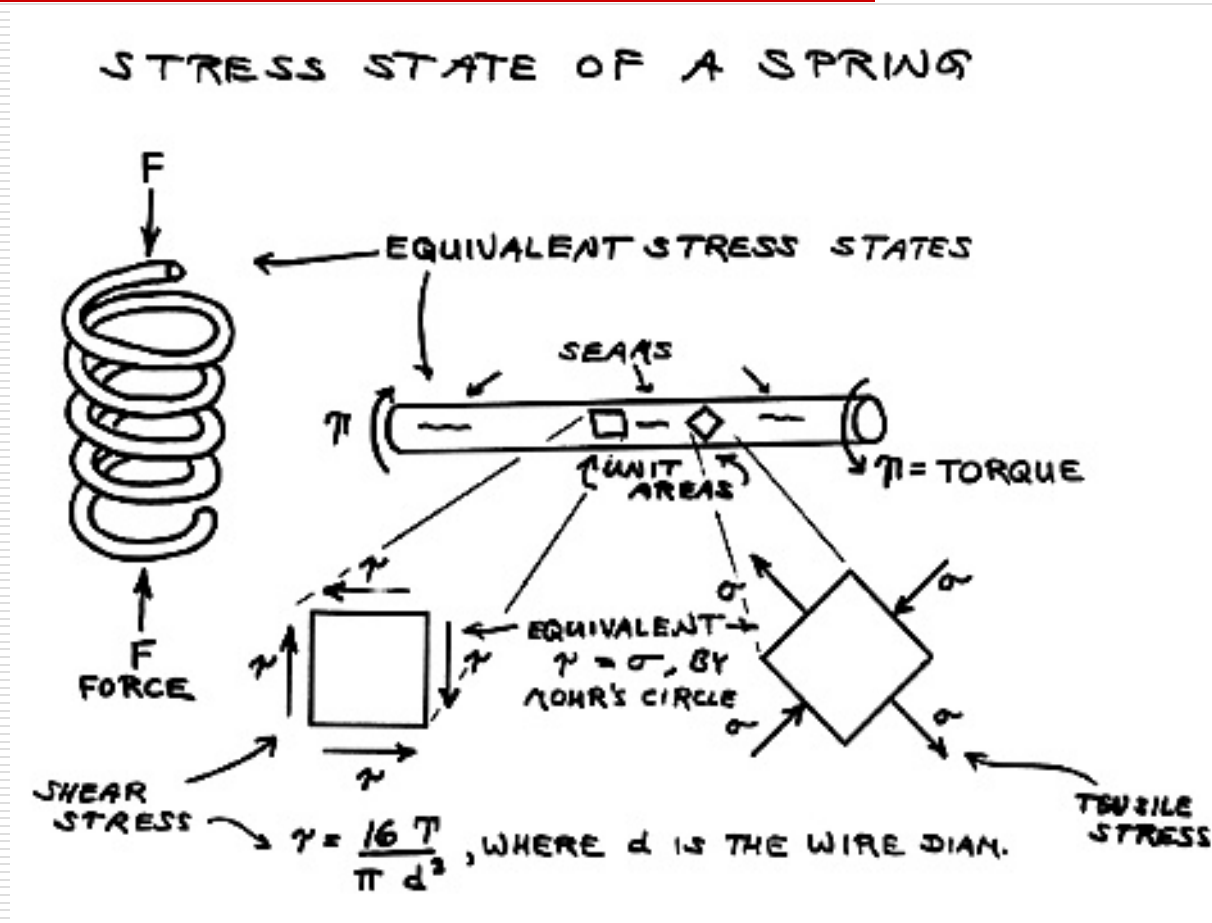
(a)



(b)



Stress and Strain - Torsional



Animations

Watts Linkage

