



**EUROCODES**

Bridges: Background and applications

Dissemination of information for training – Vienna, 4-6 October 2010

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# **Workshop – BRIDGE DESIGN TO EUROCODES**

## **Vienna, October 4-6, 2010**

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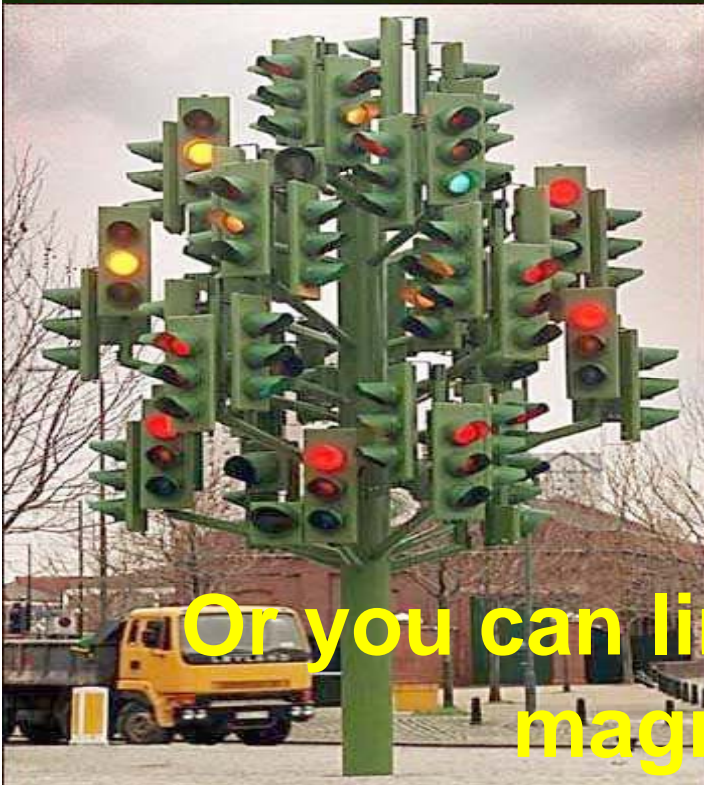
**TC250**



**Since the 31st of March 2010, the Eurocodes have replaced the current national codes for the design of construction works, and bridges in particular. We do not need to give the good example: their usability has been checked since several years, the design loads cover correctly physical loads and their rules are modern and reliable.**



You can ignore the Eurocodes ...



Or you can limit the traffic volume and magnitude of loads ...



*Many beautiful bridges have been design in the  
past without the Eurocodes ...*



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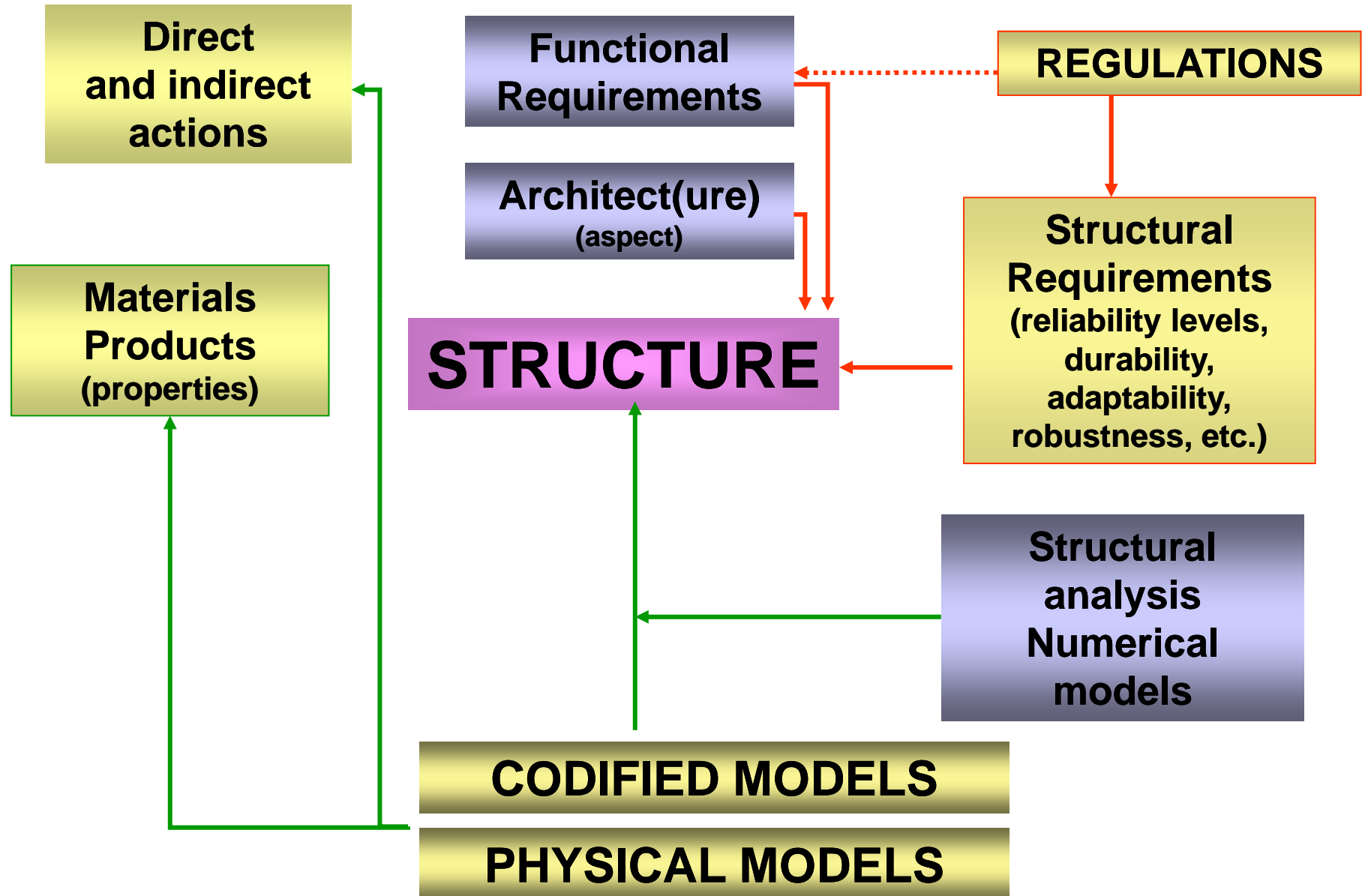
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*Therefore, are standards and more particularly the Eurocodes useful for the design of bridges ?*





*First aspect*

*Improvement of durability and evolution of material  
properties*

*(requirements, design rules and detailing)*





**Corrosion phenomena**



**Alkali-silica reaction**





*Second aspect :*

*The magnitude of traffic loads increases  
permanently*



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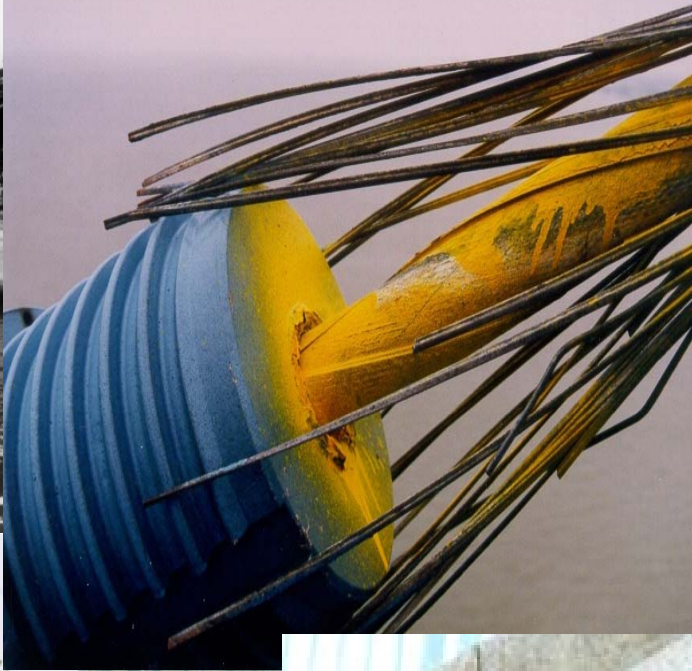
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*Third aspect : accidental design situations and  
accidental actions, robustness*

**EN 1990 - 3.2 (3)P The selected design situations shall be sufficiently severe and varied so as to encompass all conditions that can reasonably be foreseen to occur during the execution and use of the structure.**





*Fourth aspect :*  
*Dynamic behaviour and serviceability criteria for*  
*slender structures*



## Vibration of footbridges









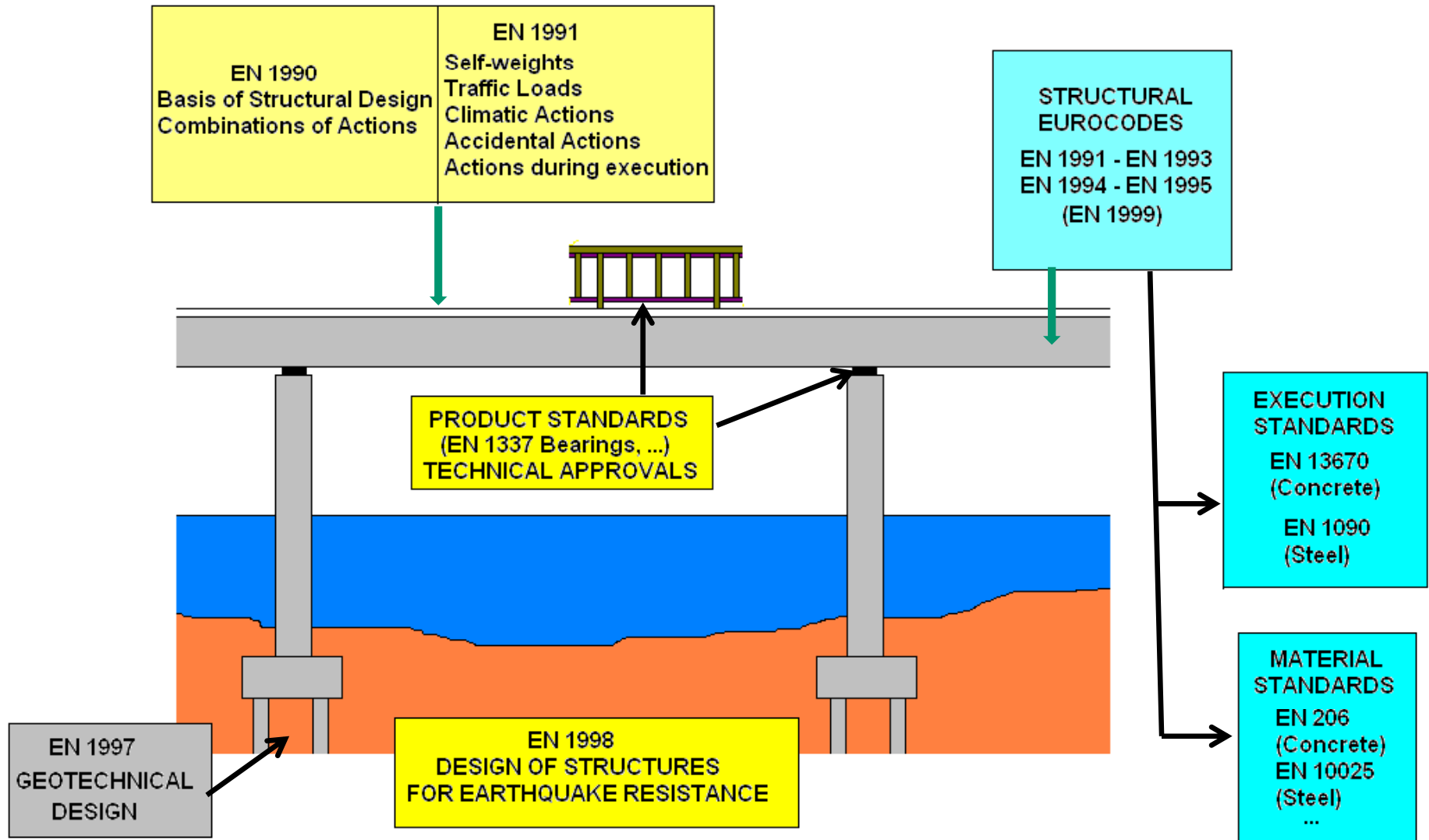
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# Interaction loads - structure



## Design of bridges with the Eurocodes





*A dream : building bridges with Eurocodes for a better world, a link between planets !*



**Thank You for your attention**