



The cover slide features a blue vertical bar on the left with the TU Delft logo. The main area is divided into three sections: a top right image of a steel beam with a triangular pattern, a middle black section with the title and author information, and a bottom image of stacked grey structural components. A small blue number '1' is in the bottom right corner.

# Resistance of High Strength Steels and FRP structures

M. Pavlovic, Section: Structural and Building Engineering  
Group: Steel, Timber and Composite Structures

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The content slide features a blue vertical bar on the left with the TU Delft logo. The main area contains the presenter's name, the title, and a list of topics. A small blue number '2' is in the bottom right corner.

Dr.ir. Marko Pavlovic

## Resistance of High Strength Steels and FRP structures

**Content:**

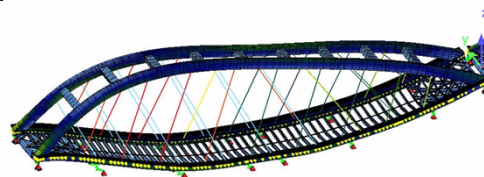
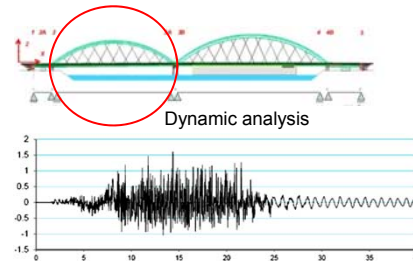
- Bridges
- Joints
- High Strength Steels
- Fibre Reinforced Polymers
- Sandwich panels
- Goals

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## BRIDGES

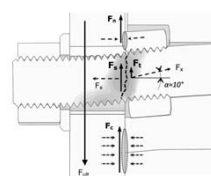
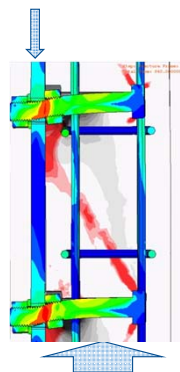
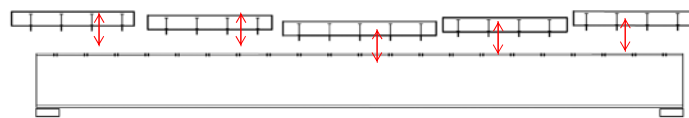
- Tied-arch bridge 212 m



Assembly and Launching design  
Stage: installation of hangers

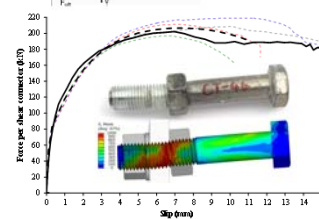
## JOINTS

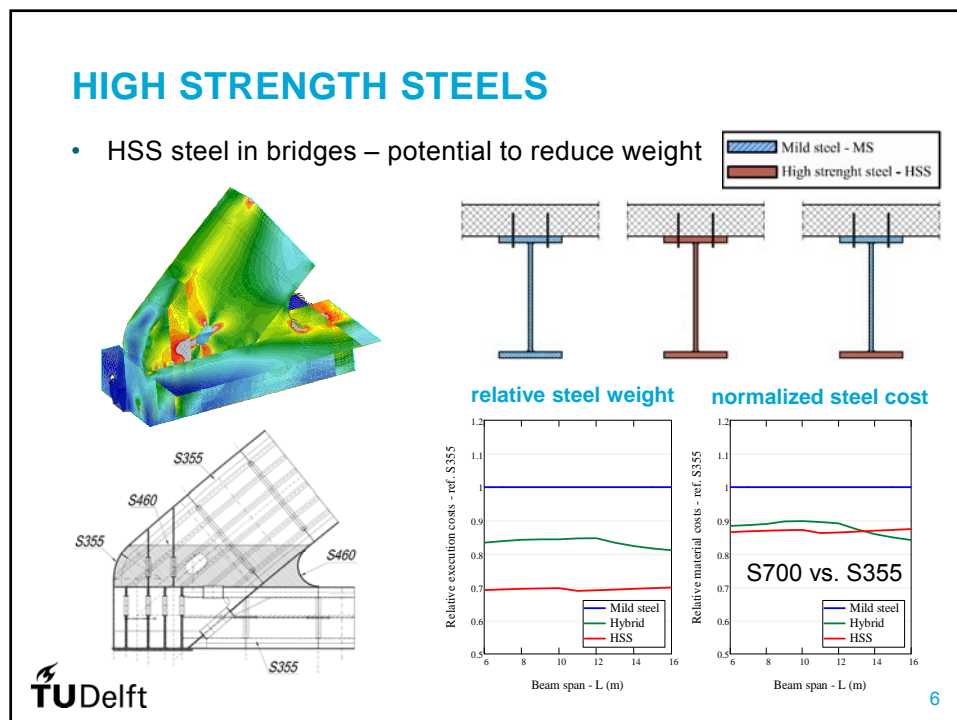
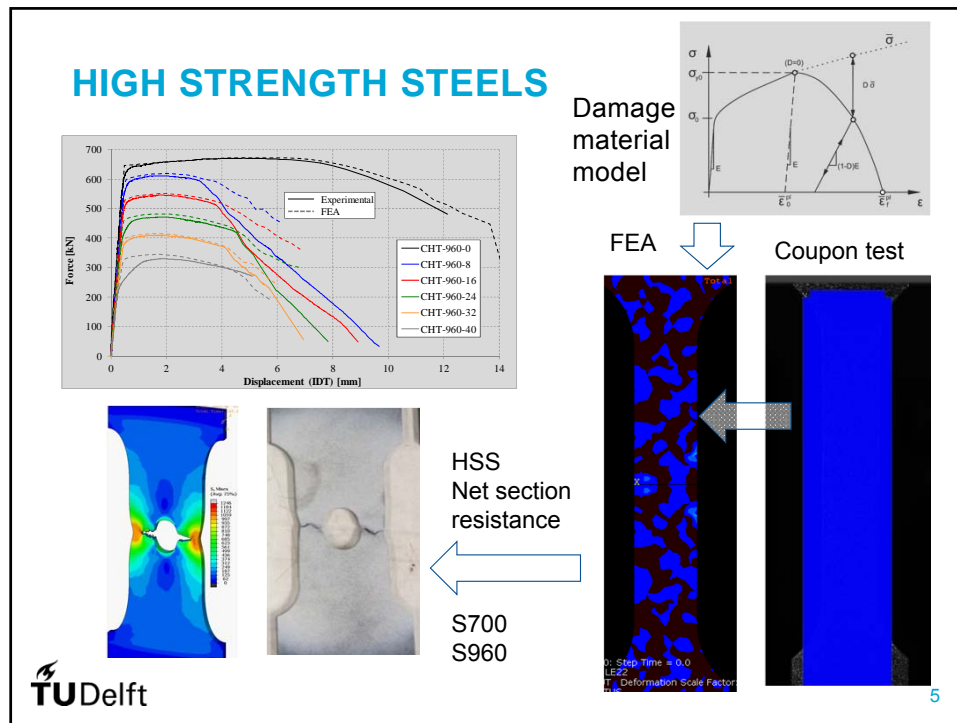
- Bolted shear connectors for prefabricated composite decks



Design:

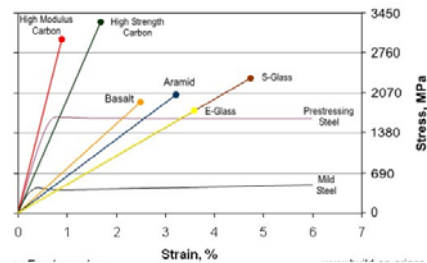
Resistance  
Ductility





## FIBRE REINFORCED POLYMERS

- High strength, Lightweight, Durable



Lock doors

Pedestrian bridges



Bridge decks

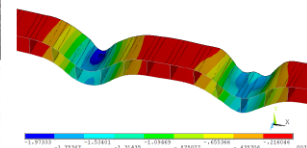
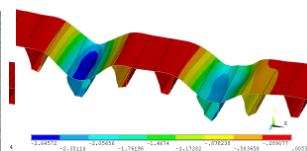
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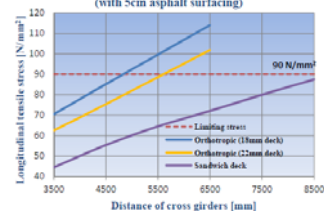
## SANDWICH PANELS



Inspired by living forms



Comparison of maximum tensile stresses (with 5cm asphalt surfacing)



MSc Thesis: P. Godar, TUDelft 2013

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## GOALS

### *RESISTANCE OF HIGH STRENGTH STEELS AND FRP STRUCTURES*

Fatigue free

Lightweight

Durable