

## Objective

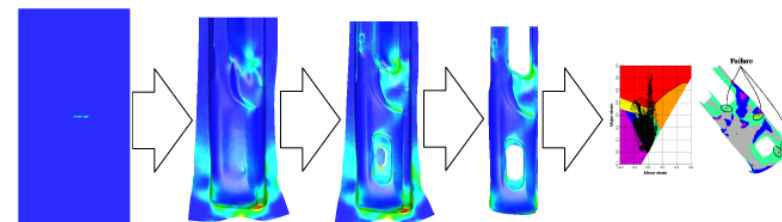
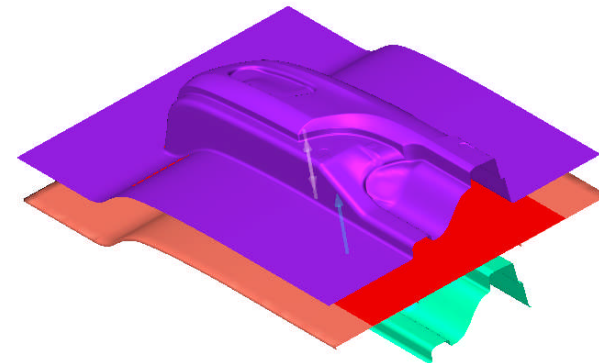
Forming of a component can have a large effect on the crash behaviour. Computer aided engineering tools are used in the automotive industry to evaluate the crash performance of the product design. Furthermore it is important for DAF to strive for weight reduction of the truck.

## Research topics

- A bumper was selected for which all the required steps in the analysis process were taken
- Results obtained with various finite element packages have been compared with experimental results

## Industrial benefits

- Optimized ratio between part weight and crash worthiness. Weight reduction of a truck results in lower fuel consumption of about 1 litre per kg per year
- Future safety demands like Front Underrun Protection require detailed knowledge on materials properties after forming related to crash



*Forming to crash, Process simulation of DAF bumper*