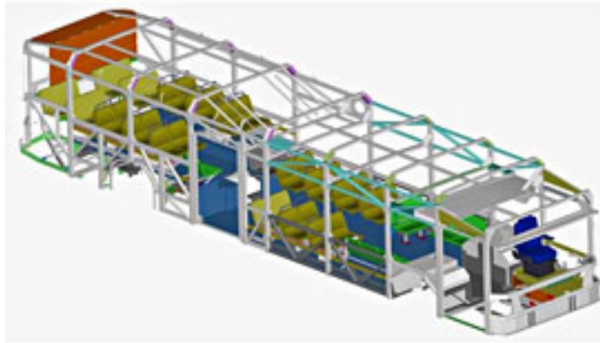


# Product engineering design (CAD)



## Styling feasibility

- Verification that both legislation and internal OEM standards requirements have been met

## Technical feasibility

- Verification that production and structural requirements have been met

## Stamping feasibility

Weld access

Assembly sequencing

Section areas

Material thickness

Paint access

Paint drainage

## 3D component design

*BIW-space frame*

- Space frame design for small or special vehicles
- Body and chassis frame design for buses and coaches

*BIW*

- Bodies with stamped components

### *Closures*

- Bonnets
- Hinged doors
- Sliding doors
- Tailgates
- Filler doors

### *Exterior and interior trim*

- Dashboard elements
- Cockpit modules
- Frontend modules
- Front and rear bumper systems
- Side door trims

### Package, gaps and offsets

Design

Volume definition

Ergonomics

Tolerance calculations

- Trunk elements
- Front seats
- Rear seat systems

### **Process quality control**

- Weld gun access studies
- Stamping feasibility
- Mold flow investigations
- Studies and optimization of tolerances

### **2D assembly sequence schemes**

- A4 format for ease of handling intended for both design and process engineering use

**2D detail and assembly drawings / Explosion drawings**

**Assembly instructions.**

- Final assembly process sheets