

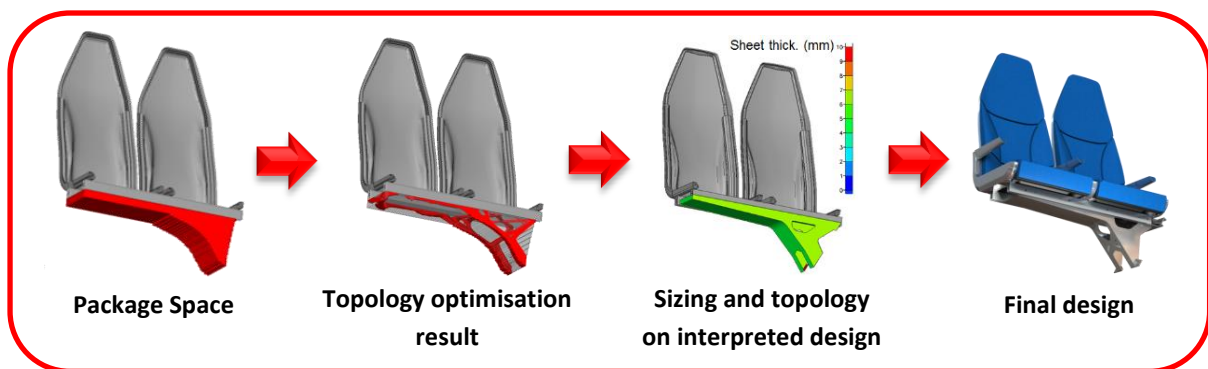
Topology In Action

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Whether you are looking for guidance to create preliminary designs or aiming to fine tune existing designs to save mass or reduce localised stress hot spots, the examples below show that optimisation can be used throughout a project without any limitations on the design scale or material.

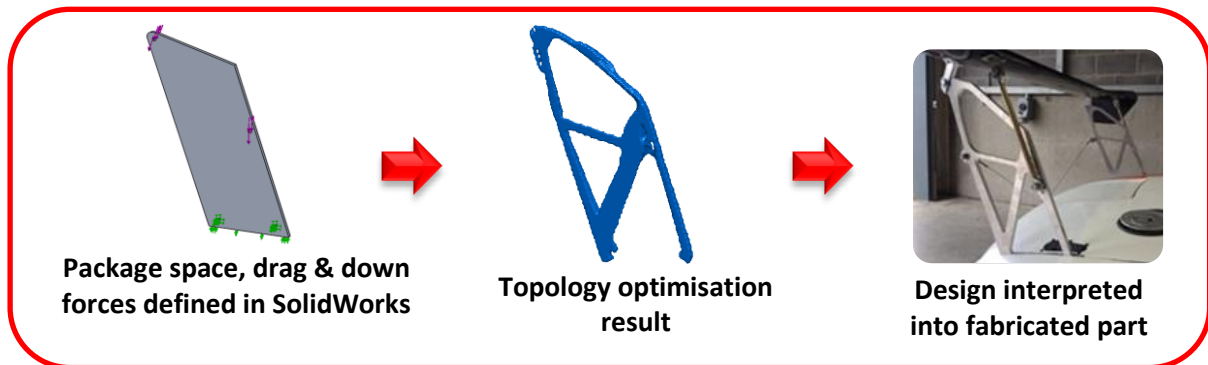
HITACHI Cantilever Pedestal optimised using Genesis

Both topology and sizing optimisations have been used to create preliminary design concepts and fine tune a final design, meeting all design criteria whilst minimising total part mass. Using optimisation the first cantilever mounted rail seat to meet GM RT 2100 Issue 5 safety standards was developed with a cantilever mass of only 6kg.



BMW Z3 Rear Wing Stay Optimised in SolidWorks using Truform SW

Using Truform SW we were able to rapidly identify optimal material layout to support required loads and then develop a design ready for manufacture all within the SolidWorks environment.



Summary

Topology optimisation can be used to reduce the mass or improve the performance of your designs. Optimisation is available to anyone, detailed FE knowledge or previous optimisation experience is not always necessary. GRM are able to provide different tools to suit your needs:

- Genesis, a standalone FEA & Optimisation package
- TruForm for Abaqus
- TruForm SW for Solidworks
- GTAM/GSAM for ANSYS Mechanical

[For more examples click here to see the full presentation](#)

