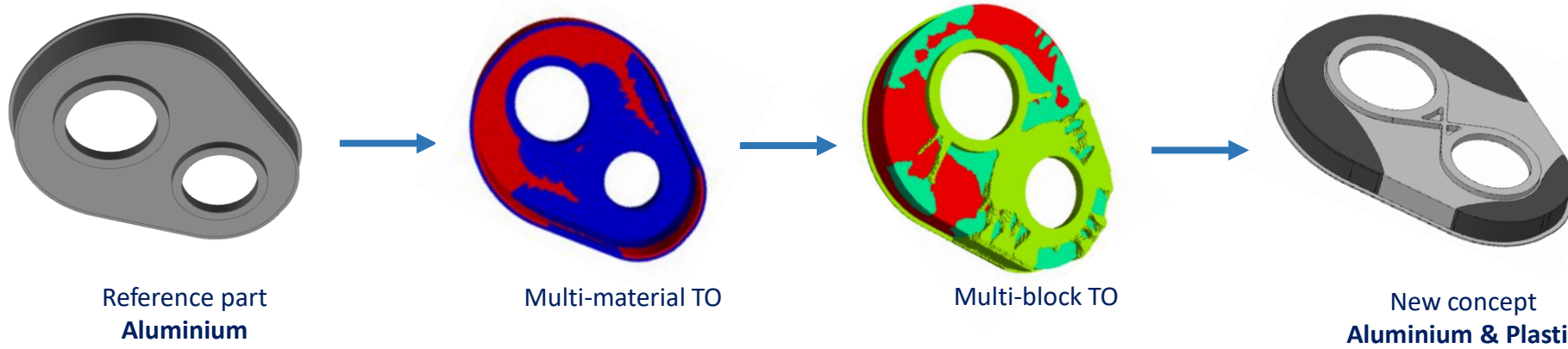


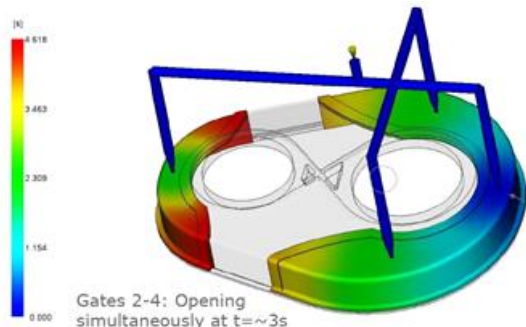
# New concept of a lightweight gearbox rear cover made of aluminum and plastic using multi-material topology optimization



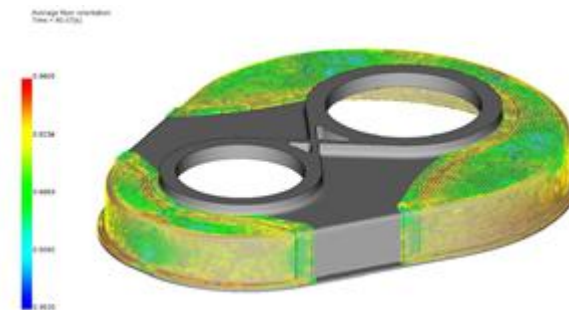
New concept proposal

Total weight reduction of approx. 30%

Total CO<sub>2</sub> emissions reduction of approx. 40%



Injection molding of plastic



Average fiber orientation



Prototype

Manufacturability assessment