

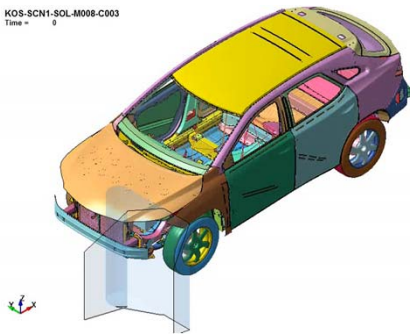
Benefits

- Evaluation of collision performance, noise and vibration performance at full car level
- Proposals on how to use the material for full car performance

Collision Analysis

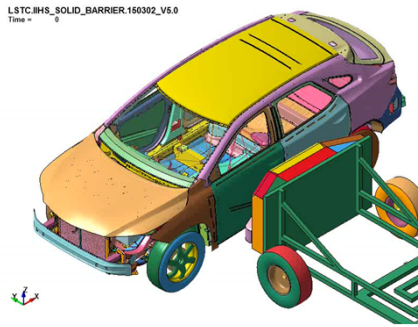
Compliance with major crash safety evaluations

KOS-SCN1-SOL-M008-C003
Time = 0



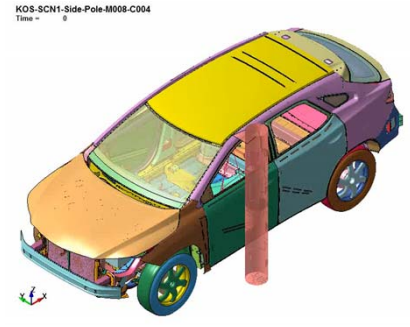
Front Crash
IIHS small overlap 25% (64km/h)

LSTC:IIHS_SOLID_BARRIER.150302_V5.0
Time = 0



Side Crash
IIHS MDB 90° (50km/h)

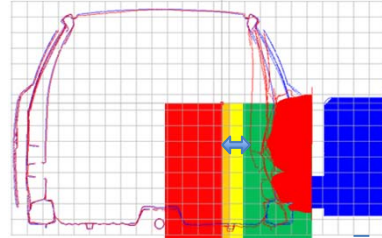
KOS-SCN1-Side-Pole-M008-C004
Time = 0



Side Crash
EURO-NCAP pole crash 75° (32km/h)

Evaluation of collision performance in terms of intrusion volume and survival space distance

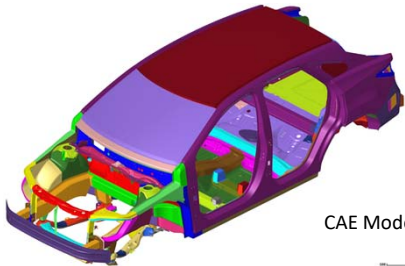
Side Crash IIHS MDB 90° (50km/h)



Survival Space Distance : 176.6mm/GOOD

Noise and Vibration Analysis

Dynamic stiffness evaluation by response analysis



CAE Model

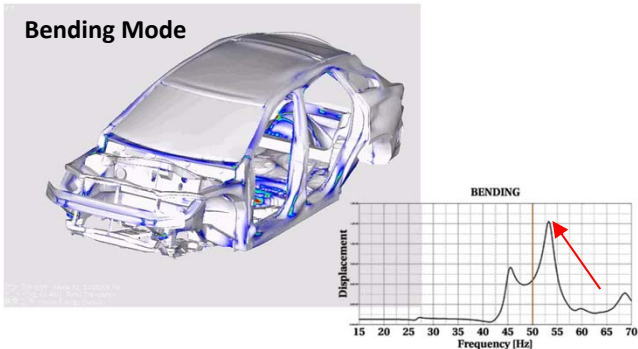
【Main specifications of the vehicle used in the case study】

Dimension & Weight SUV (E segment)

Length	4,826 mm
Width	1,885 mm
Wheelbase	2,785 mm
Height	1,710 mm
Curb Weight	2,150 kg

※KOBELCO'S original vehicle model

Bending Mode



Torsion Mode

