Calsonic Kansei recommends products in a short period of time through CAE analysis to meet the customers’ specifications for performance and functionality from the concept phase of the designed cars.

**STAR-CD**
- Heat, flow analysis
  - Assessment of the sensitivity of the $O_2$ sensor attached to the exhaust manifold
  - Flow deviation analysis on the converter

**GT-POWER**
- Engine performance analysis and analysis of exhaust output sound

**ABAQUAS**
- Non-linear structural analysis (calculation of strength and heat stress), heat strength analysis of exhaust manifolds and the like
  - Flow deviation analysis on the converter

**S-SIM (Software developed by Calsonic Kansei)**
- Analysis of sound dampening performance
  - Forecast of output sound
  - Forecast of sound dampening performance

**EDAS (Software developed by Calsonic Kansei)**
- Vibration analysis of exhaust systems
  - Examination of the MTG layout of exhaust systems (static division and weighing)
  - Examination of vibration and strength of exhaust systems
    (Analysis of interior muffled sound due to vibration transferred from MTG)

**I-DEAS**
- Linear structural analysis (calculation of strength and heat stress)
  - Exhaust systems and unit vibration mode analysis
  - Vibration mode analysis such as E/P and shells
  - Examination of the flex shape and peak count