**ASD (Active Sound Design)** is a technology for providing a target sound inside a vehicle by means of electronic and audio solutions.

Thanks to **ASD by genesis** (Active Sound Design) you can design the sound of your engine.

**ASD by genesis** is a comprehensive solution for getting a desired engine sound in the car, from design to mass production, based on 3 elements:

- **ASD designer** is the sound design software to precisely refine the engine sound in the office or interactively in the vehicle with the Drive-in feature.
- **geneBOX** is the Road Test Unit for testing the target sounds in the real vehicle, on the road, without headphones, with an Android Tablet application.
- **ASD runtime** is the software component to be implemented in the audio system of the mass production vehicles. In this platform, the sound rendering is the same as the one obtained with **geneBOX**.

**ASD by genesis** proposes two main tools:

1. **ASD development toolkit**

   - Original sound recording + audio FRF
   - Engine sound analysis
   - Sound design and fine tuning
   - In-vehicle testing
   - Mass production

2. **ASD algorithm licence for mass production**

Use of **ASD geneBOX** for in-vehicle testing.
geneBOX is also suited for sound generation in EV and HEV, for interior sound as well as for warning sound. Interior sound is important for providing speed and acceleration perception to the driver, and exterior warning sound for pedestrians.

geneBOX and his Android Tablet application

geneBOX is used by many car OEM and audio suppliers like Renault. In the Renault CLIO launched in 2013, the driver can select the sound of the engine with the car audio system.

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genesis company offers a comprehensive range of products for sound design and sound simulation for the car industry. All these products are compatible: sound synthesis algorithms are the same, and the sound data sets can be exchanged. Then a sound can be processed throughout this chain and exchanged between NVH department, Virtual Reality department and Driving Simulator department. Thus, it is possible to consider NVH works on Driving Simulator.