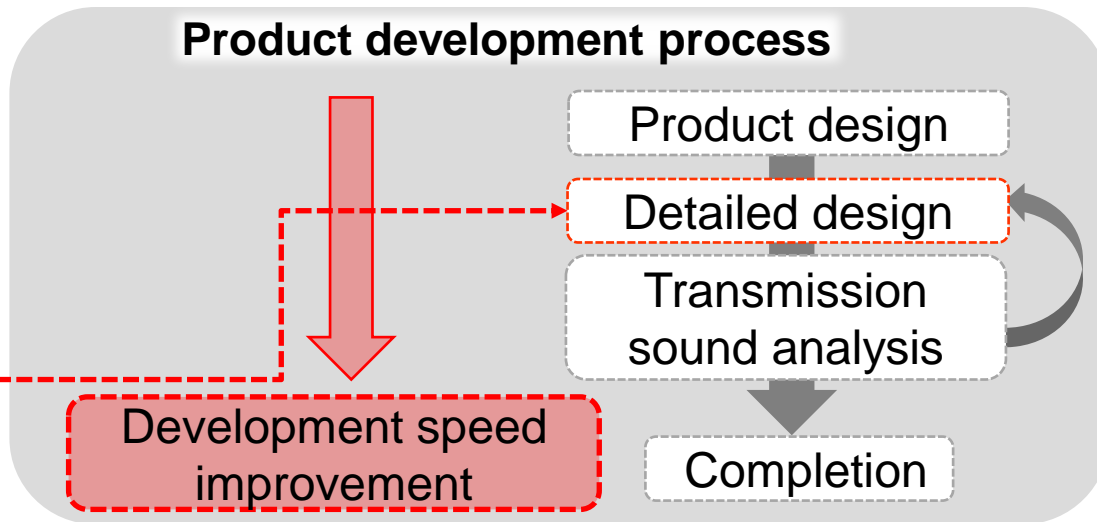
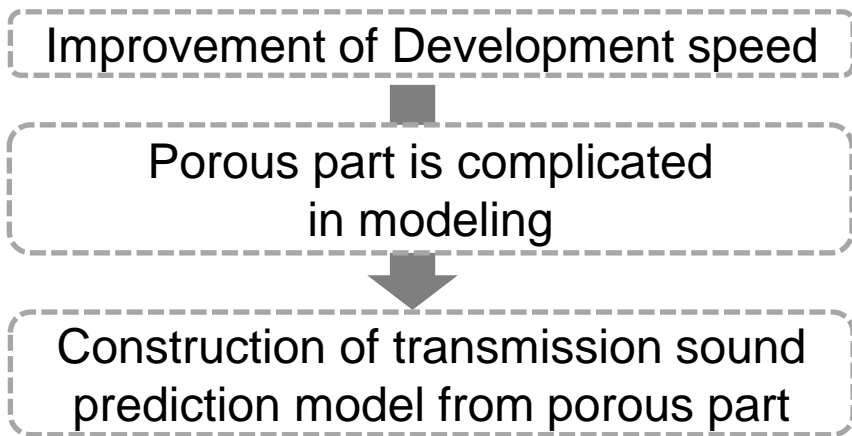




Construction of Simple Prediction Model for Transmitted Sound Control from Porous Part

Background



Content

Transmission sound

Single opening

Comparison with

- Approximate solution
- Experimental value

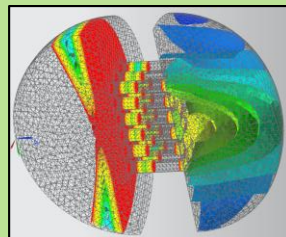
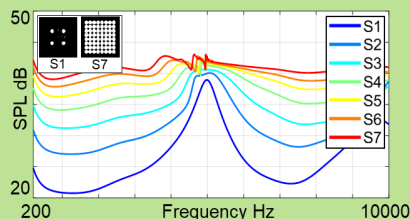
Porous part

- FEM
- Frequency analysis
- Transmission loss

Psychoacoustic evaluation

Psychoacoustic measure

- Loudness
- Sharpness

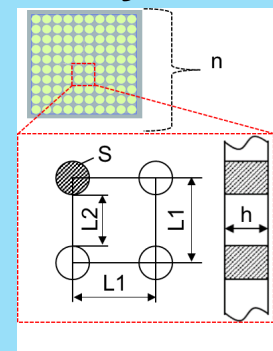


Simple Prediction Model

Multiple regression analysis

Parameter

- One aperture area
- Numerical aperture
- Total opening area
- Center distance
- Edge-to-edge distance
- Thickness



Prediction model

$$y = a_1x_1 + a_2x_2 + \dots + a_qx_q + b$$