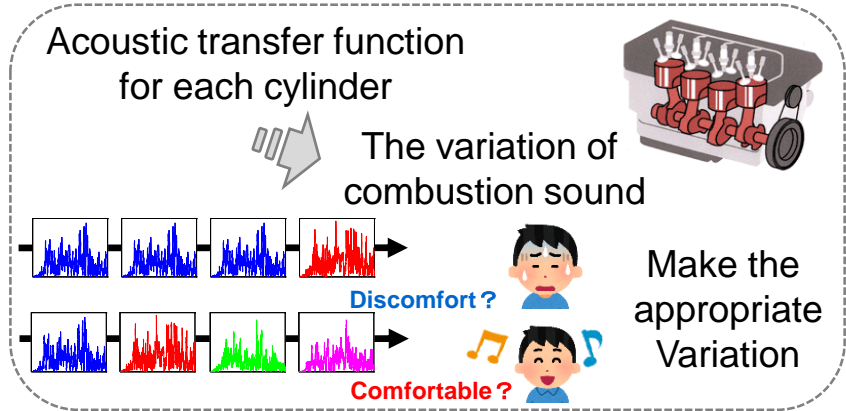
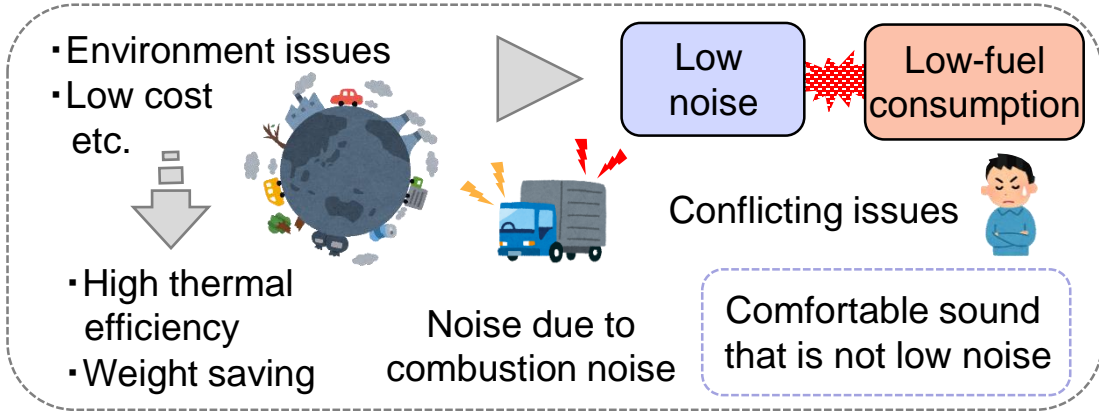


### Background

#### Disel engine problems

#### The purpose of this research



### Content

#### Relationship between variability and comfort

Examination of metrics showing variability due to the subjective evaluation

Subjective evaluation :

- SD method
- Paired comparison method

- Comfortable
- Fluctuation
- Fatigue

def → pattern1 → pattern2

#### Construction of estimation model for feeling comfortable

Calculation of estimation model by multiple regression analysis

Metrics

- Frequency band
- Sound pressure fluctuation etc.

$Model = Ax_1 + Bx_2 + \dots$

**Calculation of estimation model**

#### Make comfortable sound by structural change

Make comfortable sound by structural change using numerical simulation

Structural change based on the estimated model

Make the sound of appropriate variation