

RAILWAY BUSINESS UNIT



Experts in testing and modelling complex mechanical systems committed to the development and operation of more reliable, durable, quiet and comfortable technologies.

www.vibratec.fr

VIBRATEC ASIA PACIFIC

ABOUT VIBRATEC GROUP



Established since 1986

Companies of SITES Group:

- VibraTec
- VibraTec Asia Pacific
- MicrodB
- VibraTeam

Expert in the testing and modeling of complex mechanical systems.

In the following fields:

- Vibration
- Acoustics
- Fatigue / Reliability

A multi-sector experience



Railway



Energy



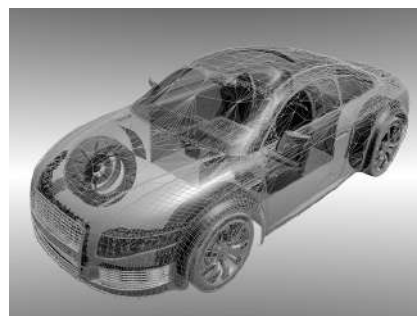
Industry



Marine & Defense



Aerospace



Automotive

RAILWAY BUSINESS UNIT



VIBRATEC IS PRESENT AT ALL STAGES OF PRODUCT DEVELOPMENT:
ROLLING STOCK AND INFRASTRUCTURE

- 5 yrs



DESIGN

- Feasibility
- Specifications
- Design assistance
- Optimization
- Testing & validation

COMMISSIONING

Reception & acceptance:
-Acoustic and vibration

Diagnostics & expertise:
-Mechanical failures
-Complaints from residents
-Derailment

Recommendations & solutions

Year
0s



OPERATION

- Maintenance optimization
- Diagnostics & expertise
- Asset management
- Life extension support



+ 30 yrs

RAILWAY SYSTEM APPROACH



A DEDICATED TEAM WITH INDUSTRY EXPERTISE SERVING THE ENTIRE RAILWAY SYSTEM



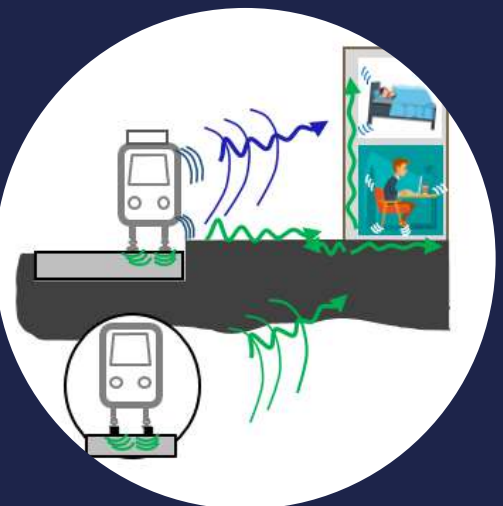
WHEEL - RAIL INTERACTION

- Contact force identification
- Wear and fatigue of rolling surface, wheels and rails



INFRASTRUCTURE & ROLLING STOCK

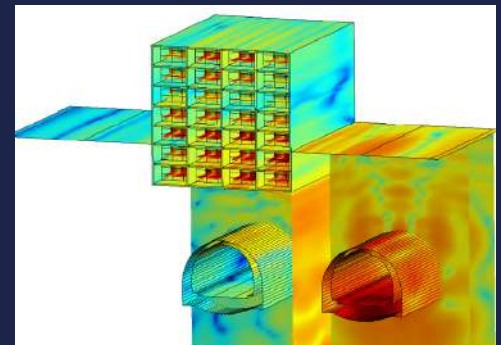
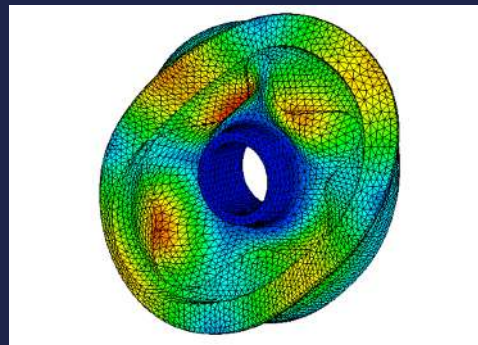
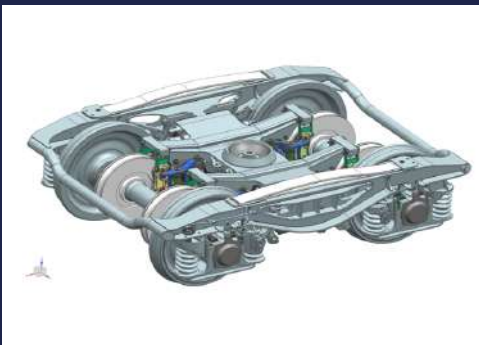
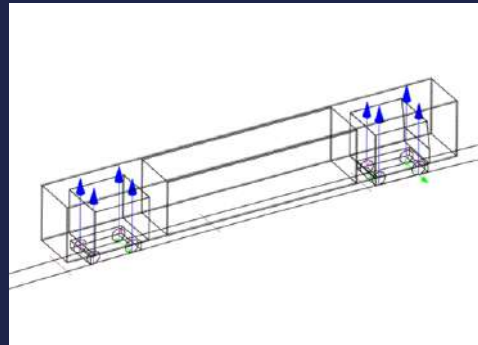
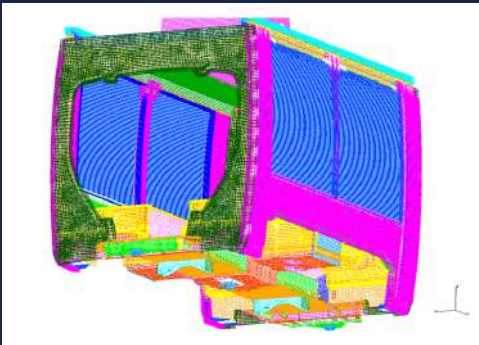
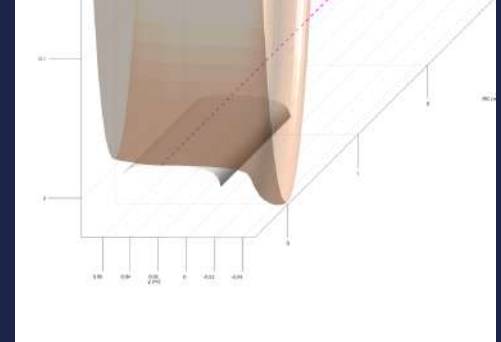
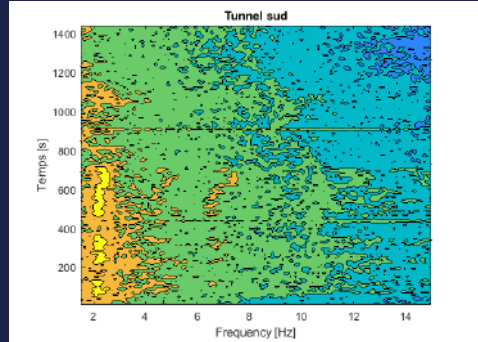
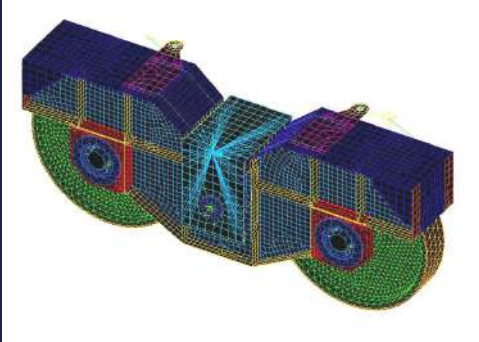
- Railway dynamics: stability, derailment, mechanical loading
- Design & optimisation
- Asset management: Service life and reliability



ENVIRONMENTAL IMPACT

- Vibration and noise propagation in the vicinity of transport lines
- Transmission in buildings
- Defining track laying

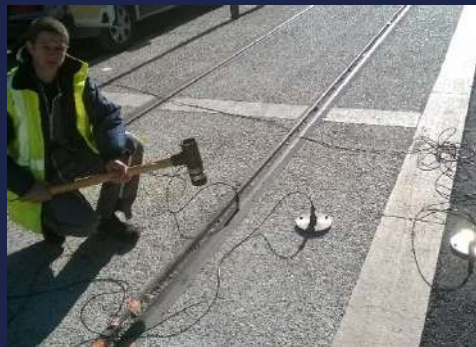
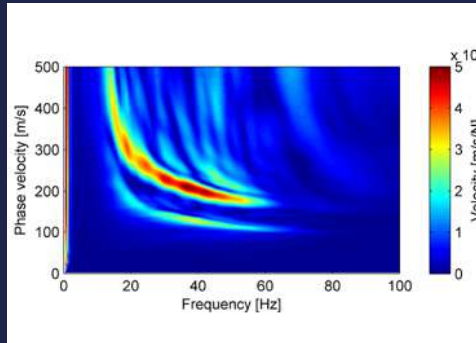
MODELING COMPONENTS / SYSTEMS / ASSEMBLIES



- Mechanical response computation (FEM)
- Rail / wheel wear
- Rail / wheel contact
- Electrical - Mechanical
- Ground vibration - Track laying
- Acoustic radiation
- Interior acoustics

- Railway dynamics
- Rolling noise - Squealing
- Aeroacoustics
- Mechanical design
- Gears & Bearings
- Signal processing
- Software development
- Excitations sources / efforts / coupling

TESTING COMPONENTS / SYSTEMS / ASSEMBLIES



- Acoustic testing
- Experimental Modal Analysis
- Components validation / Testing severity
- Rolling tests
- Ground vibration tests
- Endurance tests
- Vibration diagnosis
- Acoustic diagnosis
- Specific instrumentation
- Roughness measurements
- Test bench design
- Monitoring
- Signal processing
- Software / hardware development
- Excitations sources / efforts / coupling

OUR TRUSTED PARTNERS



GET IN TOUCH



Farhana Yusree

Business Development Engineer

+6017 930 7688

farhana.yusree@vibratec.my

Alif Jamalludin

Business Development Manager

+6012 683 8089

alif.jamalludin@vibratec.my



A-15-13 Menara UOA Bangsar, 5 Jalan Bangsar Utama 1,
59000 Kuala Lumpur, Malaysia

www.vibratec.fr

VIBRATEC ASIA PACIFIC