

Training **Expert Level** Industry / Road

The **CadnaA** Expert Trainings are organized for a specific noise type or topic and impart in-depth expert knowledge. Topic related modeling and calculation issues are thoroughly discussed, also with regards to the applied standards and guidelines.

The training has been designed in such a way that participants will practice every topic and feature by means of simple **CadnaA** files.

WHO SHOULD ATTEND?

Requires the prior attendance of the seminar **CadnaA Advanced Training** or equivalent knowledge.

DEVELOPMENT OF THE TRAINING

The general workflow is as follows:

1. The trainer briefly presents the topic
2. Participants complete the exercise step by step
3. The trainer repeats the exercise
4. Short Q&A and summary

MATERIALS

- CadnaA License on the latest version
- CadnaA Training book (pdf format)
- CadnaA Files
- Official Training Certificate

Contents*

<p>Industrial Modelling – Sound Power Levels</p>	<p>Determination of Sound Power Levels from:</p> <ul style="list-style-type: none"> Measurements Openings Indoor levels Moving machinery Technical parameters <p>Sources in steady— state and with specific operating time</p> <p>Directivity of noise sources</p>
<p>Special industrial modelling situations</p>	<p>Calibration of Industrial Areas</p> <p>Indoor to Outdoor calculations</p> <p>Radiation of Chimneys / Stacks</p> <p>Open structures with or without sources inside: transparent buildings</p> <p>Absorbing or Reflecting porches, roofs or similar structures</p> <p>Barriers with transmission</p>
<p>Traffic noise – Nordic Prediction Method</p>	<p>Road parameters: road surface, traffic density, etc.</p> <p>Evaluation parameters (L_{eq}, LAF_{MAX} x%, LAF_{MAX}, Nth vehicle)</p> <p>Railway parameters</p>
<p>Special traffic modelling situations</p>	<p>Fitting of traffic sources and terrain model</p> <p>Bridges</p> <p>Tunnels</p> <p>Barriers with height-dependent absorption</p> <p>Noise barriers with cantilevers</p>
<p>Design of noise barriers</p>	<p>Wall optimizations</p> <p>Calculation and visualization of pass—by´s</p> <p>Auralisation</p>
<p>Uncertainties of the evaluation levels calculated with prediction software</p>	<p>Contributions to the overall uncertainty of results</p> <p>Calculation of the uncertainty with CadnaA</p>

Duration: one full day

* The contents of the training as well as the duration of each topic may be different depending on specific requests or interests of the attendees