



Can immission control be  
as easy as child's play?



# Why have experts been trusting us

## **IMMI – precise, efficient and user-friendly software for noise prediction and air pollution calculation**

“The history of the prognostic software IMMI goes back to the early 1980s. At that time, sound immission protection was a relevant topic in only a few European countries, and prognostic calculations had to be carried out with great effort and without the use of computer technology. Back in 1985, driven by the acoustics experts of the technology company Wölfel, now with 100 employees, the first commercially available software IMMI was released.”



Bernd Fröhling,  
IMMI Programmer  
with 24 years  
of experience

“We can proudly claim to be one of the pioneers in the quality assurance of software products for noise calculation. As founding members of the standardization committees for DIN 45687 and ISO 17534, we have made a significant contribution to the quality standard which must be met by serious products in this environment.”



Denise Müller,  
15 years of experience  
with IMMI

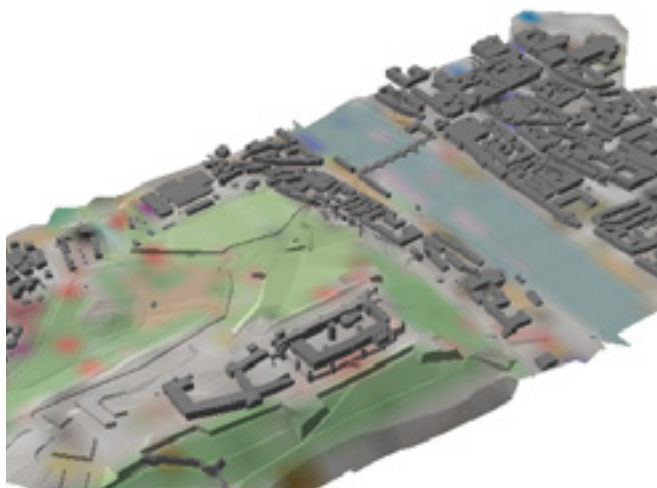
“From the very beginning, the idea behind IMMI was to create an all-in-one solution for the user. And that has remained so until today. The elegant combination of noise and air pollution calculations and the diversity and current relevance of the available regulations – in the form of element libraries – are unparalleled and especially useful for large international projects.”



Janosch Blaul,  
Product Manager IMMI  
working with the program  
for over 8 years

# for over 30 years?

The applications of IMMI are as diverse as are our clients who use it. Whether we are talking about service providers who want to draw up a validated approval report, public authorities who want to use it as an aid in urban planning, universities that use it in the context of research and teaching, or clients who want to develop their own industrial applications as with the design of noise reduction plans.



## What do our clients value in IMMI?

- IMMI is adaptable to the user and supports their working style with a customizable user interface and reports

“In our office we have developed a unique style for documenting incoming data, which works perfectly with the individualized output of the data in IMMI.”

- Simple and efficient to use, i.e. you have access to all relevant functions via a self-explanatory user interface

“The decisive factor for deciding to purchase „IMMI“ was the very logically structured and professionally clear program operation.”

- Precise results thanks to quality control of all relevant dispersion models in immission control

“It appears that the IMMI model is well suited to make these predictions (in other words the measured sound pressure levels are almost equal to the calculated sound pressure levels).”



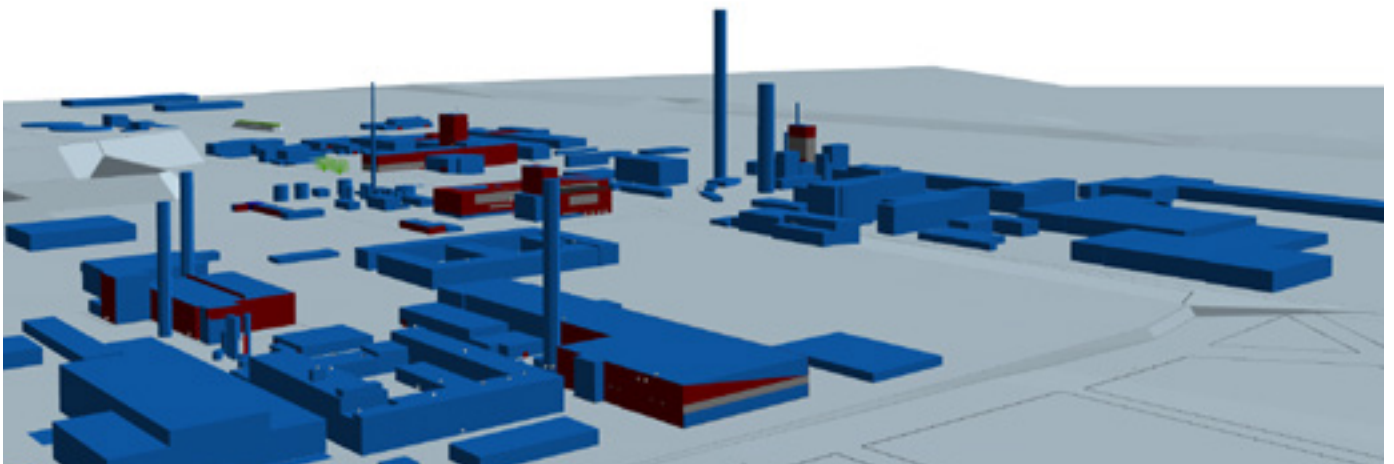
# What can IMMI do? Where can you

## **IMMI – Reliable in all areas of application**

Depending on the type of noise or pollutant and the legal requirements of a country, a dispersion model is selected as the base for the calculations. Individual program functions support you in the different applications. In addition to outdoor sound dispersion, IMMI also allows for the calculation of sound dispersion in rooms, including a function for room acoustic design according to DIN 18041 and the dispersion of air pollutants.

You can use IMMI to

- calculate commercial noise
- calculate traffic noise
- calculate noise in workspaces
- calculate air traffic noise
- create noise maps and action plans
- calculate air pollutants
- calculate room acoustics according to DIN 18041





# Do you use IMMI? Who does IMMI help?

With IMMI, our customers can find an answer to any immission control issue they may have.

Senatsverwaltung Berlin  
**Landeshauptstadt München**  
Bayrisches Landesamt für Umwelt    Sächsisches Landesamt für Umwelt  
**Bezirksämter Berlin**    Riga Stradins University  
Provincia di Milano    **Umweltbundesamt**  
**Lärmkontor GmbH**  
**TÜV Nord Umweltschutz GmbH & Co. KG**  
GE Energy Products    **BMW AG**    Möhler + Partner Ingenieure AG  
**Deutsche Lufthansa AG**    Nordex Energy GmbH  
Caterpillar Motoren GmbH & Co. KG  
Technische Universität Budapest  
**Korea National University of Transportation**  
Hanoi University of Science    **INFRABEL N.V.**    TÜV Süd Industrie Service GmbH

Would you like to learn more about IMMI? Would you like to view a tutorial, order a free demo version, study the training program or speak directly to our sales department? All this information and much more can be found under:  
[www.immi.eu](http://www.immi.eu)

# You want to know for sure?

## Noise mapping reference project in the Berlin metropolitan area

Since 2007, the State of Berlin has been commissioning Wölfel Engineering to produce and update exact noise maps of the Berlin conurbation. The noise from road, rail, commercial and air traffic is being mapped. The results of the noise mapping are also included in the building assessment of the Berlin rent index.

## The starting point

The incoming data for the calculation includes 550,000 buildings, 10,000 road sections, 5,000 track sections and around 900 million elevated points in the area.

This data together with IMMI forms an acoustic calculation model for which the noise emissions are calculated at more than 10 million calculation points.

## The IMMI solution

For the entire conurbation, noise maps with a grid spacing of 10 m as well as ambient air quality maps on the facades of inhabited buildings are calculated. The results are transmitted to the EC in accordance with the Environmental Noise Directive and serve as a basis for noise action planning for the identification of noise hotspots.





What IMMI users say:

**“With IMMI you can always keep a structured overview over large amounts of data.”**

**“With IMMI’s analytical tools you can check even complex projects for plausibility.”**

**“What I particularly like about IMMI is the complete freedom of design in the visualization of the modelled elements.”**



# What moves Wölfel?

Vibrations, structural mechanics and acoustics – this is the Wölfel world. Here we are experts, this world is our home. More than 90 employees daily do their best for complete satisfaction of our customers. For more than four decades we support our customers with engineering services and products for the analysis, prognosis and solution of tasks in the fields of vibrations and noise.

Are vibrations really everywhere? Yes! That's why we need a wide variety of solutions! Whether it is engineering services, products or software – there is a specific Wölfel solution to every vibration or noise problem, for example

- simulation-based seismic design of plants and power stations
- measurement of acoustic emissions of wind turbines
- universal measuring systems for sound and vibrations
- expert reports on noise immission control and air pollution forecasts
- dynamic occupant simulations for the automotive and aviation industry
- and many other industry-specific Wölfel solutions ...

## **Wölfel Group**

Max-Planck-Straße 15  
97204 Höchberg  
Phone: +49 931 49708-0  
info@woelfel.de  
www.immi.eu

