SoundPLAN® noise





Action Planning

Dynamic Tiling System
To easily manage data entry and calculation of huge projects

Intelligent hotspot calculation
Shows the number of people disturbed or living over threshold levels

Built-in statistics of the disturbed people
and exposures in hospitals, schools and kindergartens

Clear management of different scenarios
to find the best measures without having redundant data

Display of difference and conflict maps
with user defined formulas to show different aspects

Action Planning

After completing the noise mapping phase, action plans must be made for the communities affected by environmental noise. SoundPLAN provides all the tools you need for meaningful action plans at an affordable price: we offer useful and flexible import interfaces for adding additional properties to existing imported objects, excellent data handling with clearly structured scenario organization and a dynamic tiling system for big projects, intelligent algorithms to filter dense elevation data while maintaining the needed accuracy, fast and accurate calculations, tools to derive noise control measures according to cost/benefit analyses for residents, tables and statistics to compare the efficiency of different measures and expressive maps to easily show administrations local authorities and the public the effect of the proposed noise control measures.

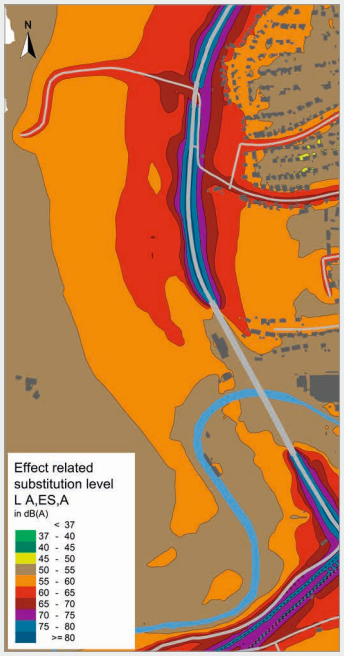
Name	Intervals	Number of affected Inhabitants L_{den}	L_n
All communities	50 - 55	4700	13100
	55 - 60	2800	10300
	60 - 65	1300	11900
	65 - 70	300	17300
	70 - 75	100	7800
	> 75	0	6000
Community Arbenrath	50 - 55	600	200
	55 - 60	300	100
	60 - 65	200	0
	65 - 70	0	0
	70 - 75	0	-
	> 75	0	-
Community Geisdorf	50 - 55	1800	800
	55 - 60	1000	300
	60 - 65	400	100
	65 - 70	100	0
	70 - 75	0	-
	> 75	-	-

Statistics of affected residents

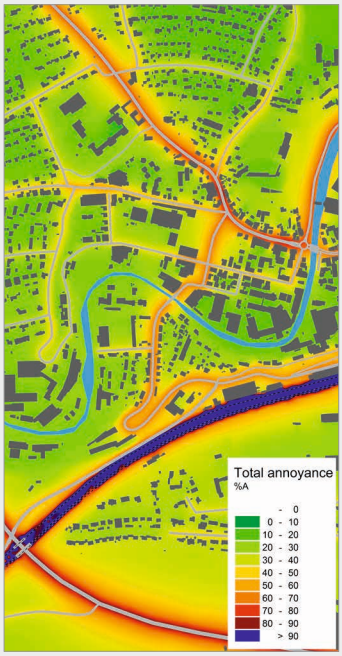
IN SOUNDPLAN INTEGRATED TOOLS TO FIND THE BEST MEASURES

1. Finding problem zones

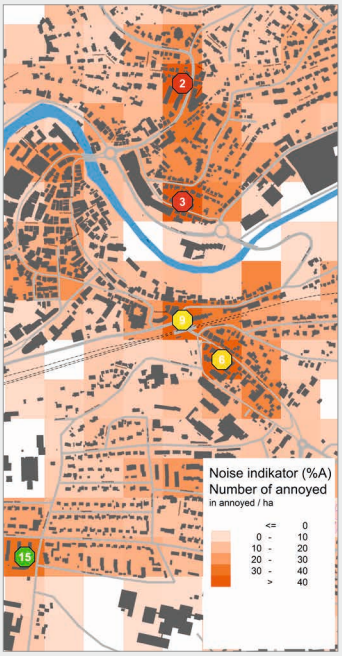
The hotspot calculation is based on the dose response relationship and the sleep disturbance according to the formulas in the position papers 2002/2003 and the VDI 3722-2. Buildings with highly disturbed people can be highlighted separately.



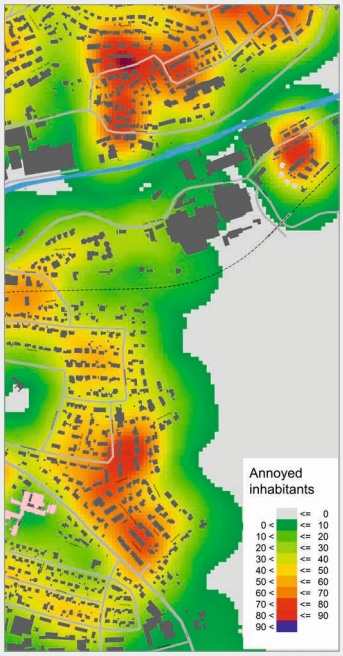
Effect related substitution level (total noise level of all traffic sources) in dB(A)



Total annoyance in % for all traffic sources



Number of annoyed inhabitants per hectare including ranking



Hotspot analysis of annoyed inhabitants

2. Developing measures

Our module Wall Design estimates sizes for noise protection walls and berms according to cost vs. benefit and the module BA Outside optimizes the component properties of facades, windows and fans in order to reach acceptable indoor levels.

3. Validating measures

The economic follow-up costs of noise in the environment can be calculated based on a model of the willingness to pay, so each noise protection measure can be checked according to its potential to reduce the costs of noise.

Software Designers and Consulting Engineers

Experts for Noise Control and Room Acoustics

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