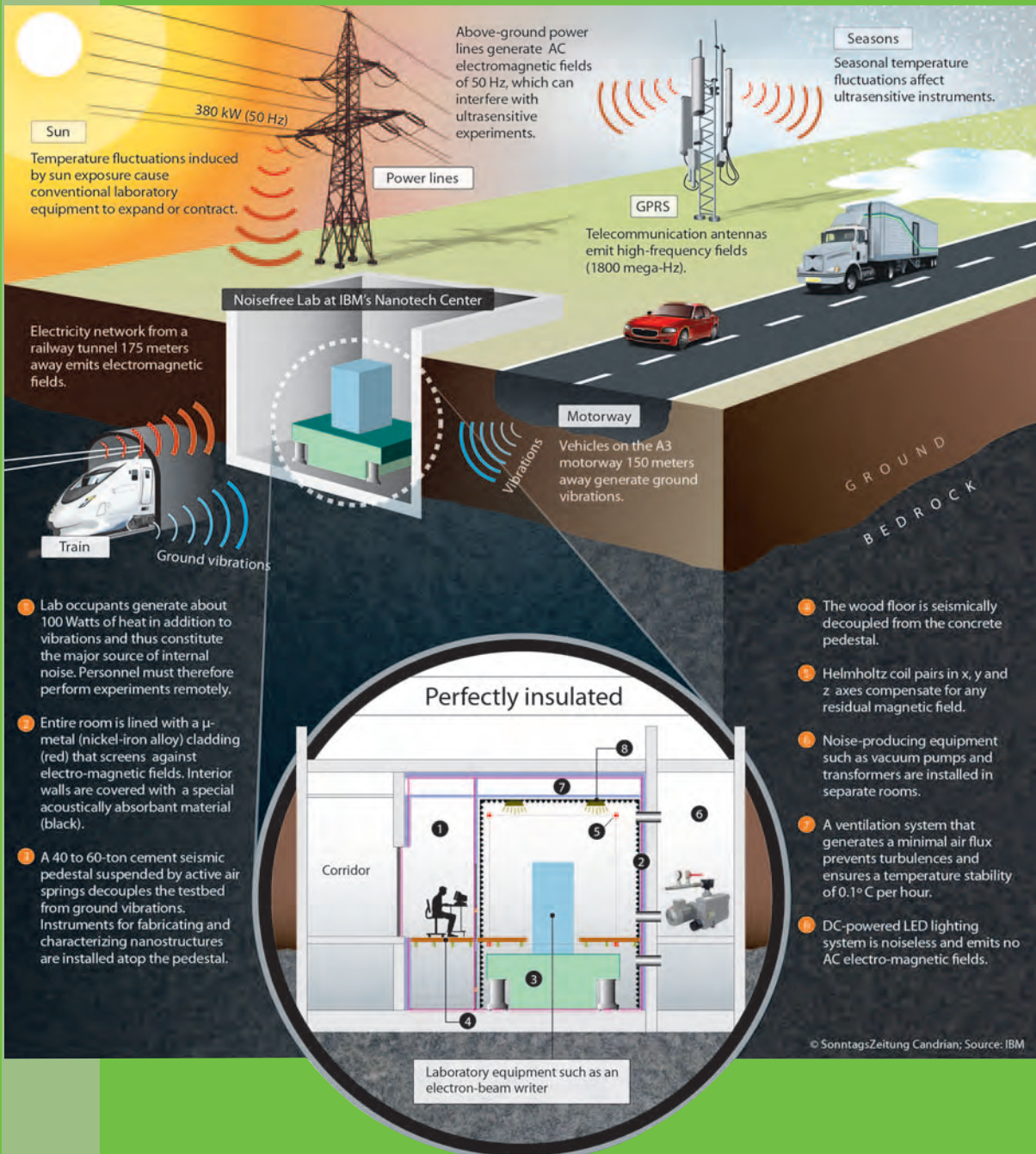


AISM

Active Isolation System

Noise and vibration isolation of research laboratories



The illustration shows some of the most important measures for reducing external disturbing influences in the "noise-free labs" of Binnig and Rohrer Nanotechnology Centers of IBM and ETH in Zurich.

The manufacture and characterising of ever smaller components, down to structures comprising of only a few molecules or atoms, make the highest demands on vibration isolation to protect the vibration-sensitive systems.

In order to precisely perform sensitive experiments and measurements in the nanometre range (1 nanometre = one millionth of a millimetre), the external disturbing influences such as temperature, humidity and air pressure fluctuations, noise, electromagnetic fields or floor vibrations must be kept to an absolute minimum level.

Globally respected as a competent partner, Bilz has specialized in solutions such as laboratory isolation (foundation block or platform isolators) or the direct isolation of highly sensitive machines (installation of isolation systems in machinery/plant.)

Passive membrane air springs, air springs or active vibration isolation systems are used for high-quality vibration isolation.

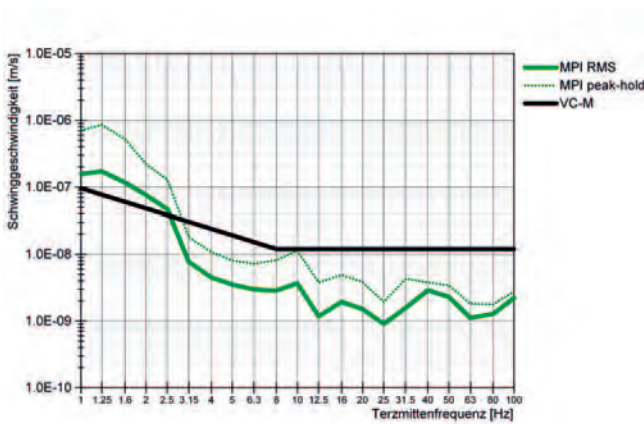
Depending on the customer's wishes Bilz also creates the complete foundation block or platform design, or provides support in the design and constructive integration of the isolation in the machine.

We are very proud to have equipped the most modern research laboratories in the world with noise and vibration isolation, these include the "Precision laboratories MPI Stuttgart" or the "Noise-free lab" of the Binnig and Rohrer Nanotechnology Center (IBM/ETH Zurich).

In the field of semiconductors renowned companies such as Applied Materials, Visotec and Zeiss are among our most esteemed customers.



Active vibration isolation AIS™ High Performance by Bilz, which suspends the glass fiber reinforced plastic armoured foundation block weighing 75 tons on air cushions.



Result of vibration measurements on a foundation block isolated with Bilz membrane air springs.



Experimentation room with 4.2 m clear room height and acoustic isolation materials (supplied and installed by Bilz).
Source: Binnig and Rohrer Nanotechnology Center (IBM Research, Zurich).