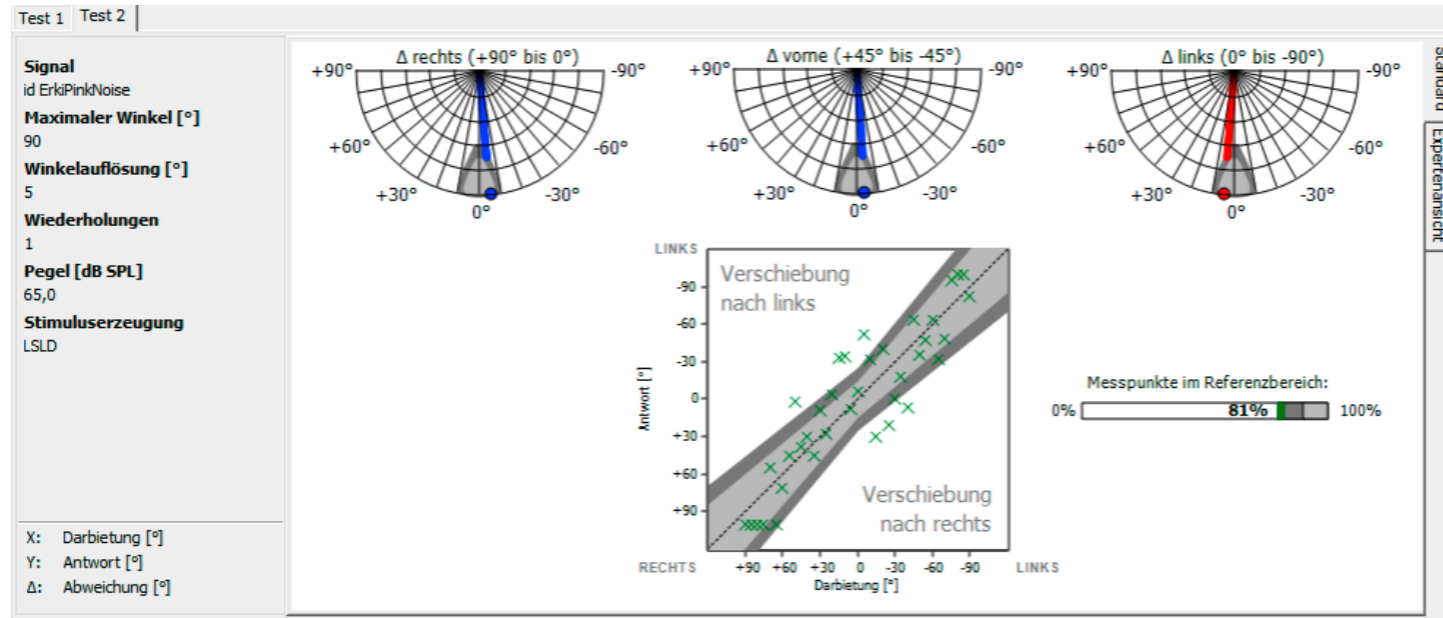




The measurement results can be displayed as following:



ERKI

The new world of Directional Hearing
For the clinical audiometers AT1000 and AT2000



ERKI is one option for the clinical audiometer AT1000 and AT2000 as far as they are equipped with 5 loudspeakers.

Other options are:

- Up to 9 loudspeakers
- Tables adjustable in height, size and colors
- Wide selection of speech tests
- Visual reinforcement tools



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One of the central auditory processes of binaural hearing is the directional hearing. The hearing system uses the differences of the incoming signals to both ears in order to determine the direction in the horizontal dimension.

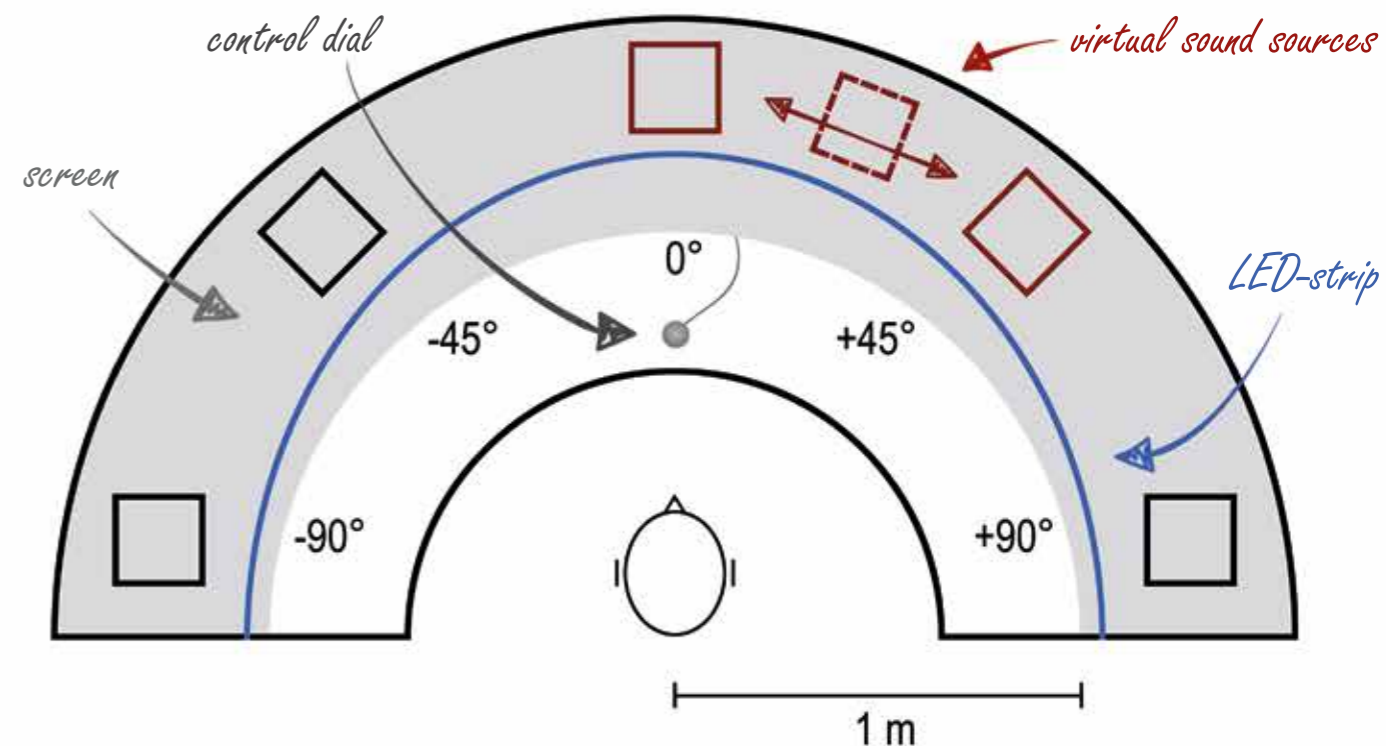
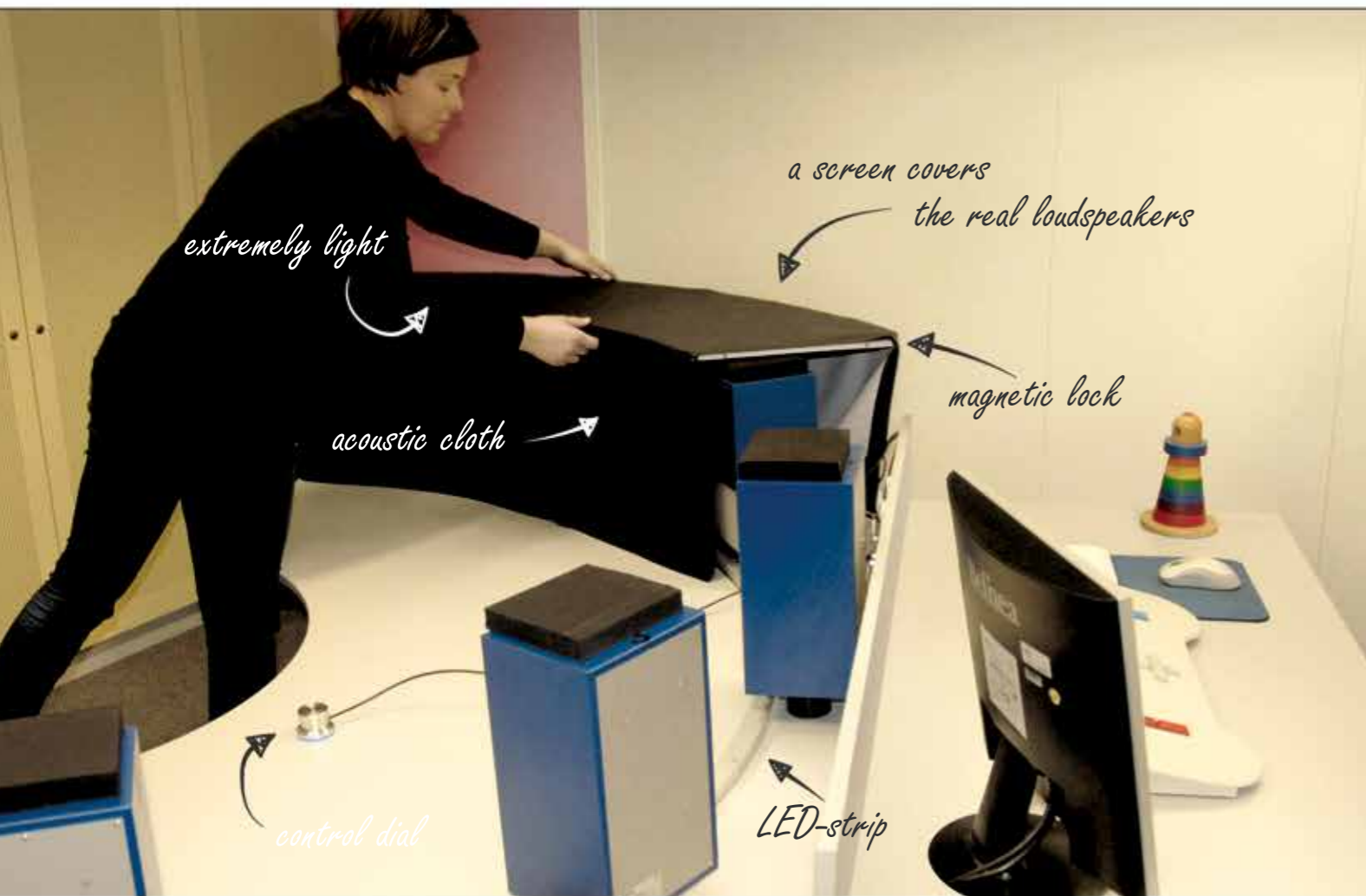
The most precise measuring results with a medical product are accomplished with a audiometry table where between 5 and 8 loudspeakers are arrayed 1m around the patient. ERKI now opens the possibility to a resolution of 5° instead of 30° or 45°

The preconditions for the development were:

- Intuitive operability without the need of long training
- High precision of recording
- Easy calibration of real and virtual source of sound
- Fast testing
- Computer-controlled, automated test; Independence of the examiner
- The results shall be displayed in a numerical and therefore electronically analyzable format

We have implemented these points.

The covering of the loudspeakers:



Modified children's table with 5 loudspeakers ($\pm 90^\circ$, $\pm 45^\circ$ and 0° , $r = 1\text{ m}$) with a screen of acoustic cloth, constantly assembled LED-strip, and a control dial.

The head of the child is directed to the front (0°) when the stimulus is given. Then the acoustic signal is given automatically for 300ms. After the stimulus is presented, the child is turning the control dial so far that the light of the LED-strip is at the point where the child has

perceived the stimulus. Then it confirms this point by clicking with the control dial. The stimulus presentation is randomized in the whole area between -90° to $+90^\circ$ in 5° steps.

ERKI is the first tool for scientifically based diagnosis of the directional hearing.

You will get advantages for:

- the diagnosis of Auditory Processing Disorder
- the choice between different hearing aids, CIs or other hearing instruments
- sound results for comparative fitting
- the bilateral and binaural fitting of CI processors (bilCI)
- the post-rehabilitation support
- a higher Quality of Life for the patient, that feels holistically examined

