

The men of ergonomics

Anyone looking for the heart of digital ergonomics will find it in the RAMSIS Advisory Panel. This is where ten ergonomics managers — together with Human Solutions — make decisions on the development strategy of the leading ergonomics tool. This makes RAMSIS a tool of the industry and is the reason for its intensive affinity with the automotive world. Bernd Brückner, Head of Ergonomic Concepts in the Research and Advanced Development Division of Daimler AG, shows why the Advisory Panel is rightly regarded as the innovation engine of digital ergonomics.

Bernd Brückner
(third from left) with
other members of the
Advisory Panel.



KomfortZone: Lots of car manufacturers at one table. How is “Komfort” coming along?

Brückner: Very well indeed! We’ve become a real team during the course of the years — and we all work closely together. You’d be surprised.

KomfortZone: You must admit, this isn’t exactly a matter of course ... after all, you are in direct competition with one another.

Brückner: The policy is clear. We cooperate in all areas which exist before the actual competition starts with “Model vs Model.” The German automotive industry demonstrates exceptionally good cooperative behavior here. This also applies to other areas, but in the case of RAMSIS it is particularly intensive. And you have to say: it hasn’t been at all bad for us. On the contrary: German car manufacturers have always tried to do not only what is necessary, but also what is possible. And our customers reward these efforts worldwide, especially in terms of ergonomics. The ongoing awards and high rankings we receive prove it.

KomfortZone: How does cooperation function in the Advisory Panel?

Brückner: Basically, strategic development plans are in place for RAMSIS and these define a clear framework. We meet regularly and work through a fixed agenda. Each of us manages long-term projects in the role of a “project godfather”, so to speak. In my case, it’s “Force-based Posture” and “RAMSIS Sits”. We define the goals together. Suggestions for improvements come from Human Solutions and the RAMSIS User Group. Human Solutions introduces new technical possibilities, innovations from the software world and a comprehensive overview of the market. A scientific advisory board monitors the technical quality. We are also actively involved in the projects, through theses, for instance. And on occasion we end up with very impressive innovations.

KomfortZone: Do you have an example of these innovations?

Brückner: Yes, the “belt” springs immediately to mind. We have now advanced this to a stage where physical test benches have become more or less unnecessary. Digital belt simulation opens up new possibilities for designers, enabling them to customize and optimize the

safety belt for various vehicle occupants. So we actually achieve a new safety standard through this. Another significant example is the development of RAMSIS NextGen. RAMSIS is now on an entirely new platform and many aspects run faster and more efficiently. This is a huge leap forward.

KomfortZone: How has ergonomics been changed by the use of RAMSIS?

Brückner: Today vehicle manufacturers use up to ten or more RAMSIS manikins — including children. The result is that the interior is much more accurately matched to the occupants. We have long passed the point of comfortable vehicle operation. Vehicle ergonomics is increasingly becoming an enthusiasm factor!

KomfortZone: What does this mean for digital ergonomics?

Brückner: The Advisory Panel — and consequently RAMSIS — follows the popular trends. Cities are growing and the flow of traffic is becoming denser. So in future we’ll be spending even more time in the car. In many regions such as Asia, this situation already applies. So components for communication, infotainment and entertainment grow accordingly. This results in more and more ergonomic studies for an increasing number of vehicle types within ever-decreasing timeframes. This wouldn’t be possible without digital tools to objectify the ergonomics evaluation and make it reproducible.

KomfortZone: And the road ahead for RAMSIS?

Brückner: The central theme for RAMSIS will certainly include: movement, system modernization and the expansion of comfort assessment (that’s when my projects will come into play!). And of course we’re also pressing for the continuous development and expansion of the existing functionality.

Bernd Brückner ... the person

Bernd Brückner is responsible for ergonomic design in the Research and Advanced Development Division of Daimler AG. Together with ten colleagues, he develops new methods, concepts and guidelines for ergonomics and comfort and implements these in the vehicle interior.

