

## Stefan Strick, President of BAST

### Keynote Speech ESAR Conference

Ladies and Gentlemen,

I am delighted to welcome you today to the fifth ESAR Conference.

This two-day conference pursues an ambitious goal - that is to contribute to minimizing the number of traffic fatalities worldwide. It provides representatives from the political circus, the industry and academia with a great opportunity for a comprehensive exchange of ideas.

I am glad that Germany can provide a powerful impetus for vehicle safety with its "In-Depth"-Database which already exists for many years and which has been the basis for the GIDAS project- the German In-Depth Accident Study – a joint project of the Federal Highway Research Institute and the Research Association for Automotive Technology. GIDAS offers the famous opportunity to draw conclusions regarding the accident sequence and injury mechanisms on the basis of detailed accident data. By carrying out efficient sampling procedures GIDAS also lends itself to projections at national level and therefore makes it possible to issue statements beyond the areas of investigation Hanover and Dresden.

Let me start with a review of the current situation. It is more than a decade ago, that the ESAR conference started to take place every two years here in Hanover.

It became good practice that relevant people from industry and government came to Hannover to support the conference and also to give guidelines for further research. It became also good practice to report constantly on dramatic improvements in European and German National Accident Statistics.

Unfortunately this is **not** true for this year.

In Germany and in 2011 - likewise the years before - police has been called to about 2,3 Million traffic accidents.

However, in 2011 the number of accidents with personal injuries increased by more than 6%, - and has now exceeded again the number of 300.000 accidents. Even worse, the number of fatally and severely injured road users increased by nearly 10%.

Developments like this should and has raised policies attention and the question must be asked whether we are still on the right track for future vehicle and road safety. Now, it is good news that – retrospectively - the reasons for the development in 2011 are clear.

In this graph you can see recent years fatality numbers from the month December. Comparing the figures it is evident, that 2011 has not been a tremendously bad year for road safety; however 2010 was a quite unusual and tremendously good year for road safety.

Due to heavy snow falls starting in December, the number of fatal und serious casualties dropped by almost 50% in the early winter season. In 2010, in particular

the number of fatalities in urban areas has been extremely low. Compared to a “standard December” the number of car passenger fatalities dropped by (something like) 80%. The number of pedestrian fatalities was brought down to about 50% of the count of a “standard December”.

It is important to note, that at the same time the number of police reported accidents in December 2010 did not drop and the mileage driven, decreased by only about 10%.

So, what are the consequences for future vehicle safety?

First of all, the trend of 2011 does not display that system immanent mistakes have led to the increase in fatality numbers.

In Germany we will continue our joined efforts to further enhance traffic safety. Key points are given in the German Road Safety Plan 2011. Amongst many other tasks the identification of high risk groups, the deactivation of black spots, the refinement of traffic flow and the propagation of intelligent accident avoidance systems do have the highest priority.

The overall development shows however that the constant and rapid decrease in the number of road casualties slows down.

Looking at the automotive sector this shows that new innovations need to enter the vehicle market soon, in order to continue the success achieved in the last decade.

Now, what do we have to do?

Priorities for vehicle safety are driven by safety and mobility demands.

Safety demands can be concluded from statistical road safety figures. Here it is shown that the fraction of Powered-two- wheelers is a priority group. Although the total number of fatalities is less than that for passenger car occupants, accident statistics shows, that PTW have a risk of being involved in an accident, 14times higher than that of a passenger car.

However, the figure does also show that every second fatality is a car occupant. Therefore passenger car safety remains to be top priority.

Even more important, it can be seen, that passenger cars are involved in more than 80% of all accidents with injuries. 3 out of 4 fatalities happen in accidents where a passenger car is involved.

The figure does also show that heavy goods vehicles are overly represented in fatal accidents, addressing the need to make these vehicles more compatible with other road users.

These facts highlight the necessity not only to increase vehicles' self protection, but also to make cars – and trucks - more compatible and safe for other road users. Improving passenger vehicles' partner protection – which means predominately their protection for vulnerable road users – will address around 30% of all accidents with personal injuries and can substantially reduce the number of road traffic fatalities.

Priorities for vehicle safety are not only driven by safety demands but also by associated mobility demands. Mobility demands can be concluded from mobility surveys.

Looking at the latest German Mobility survey from 2008 – and looking in particular at the modal split - it can be seen that more than every second way in traffic is done with a private motorized vehicle.

Every fourth trip is done by foot, and –

Although it is only every 10<sup>th</sup> road trip which is done by bicycle, cycling is a strongly increasing mode of transport.

In fact, “going by bicycle” is increasing faster than any other mode of road traffic participation.

It can especially be seen that there is a trend towards an increasing number of vulnerable road users in traffic. This is again a distinct reason to demand better protection for cyclists and pedestrians from car design and car active and integrated safety systems.

Another priority for future vehicle safety is related to demographics. All stakeholders are aware of the demographic changes society will challenge within the next 20 years. They are aware that in 2030 there will be more people aged 65 and above, than persons aged 20 to 65.

It is however less known that the purely demographic effect will be superimposed by an increasing wish of elderly people to be mobile.

Comparing data from the German mobility surveys in 2008 and 2002, the elderly generation has grown in numbers by 16%. The blue column shows however, that the number of road traffic trips of elderly people increased by more than 30%. – which means that the mobility of elderly grows at double speed than their respective share of the population.

The consequences are partly known and partly under investigation. We know about the biomechanical deficits of elderly people. The thorax is in particular a weak point. Research towards more sophisticated crash dummies and sensor technology is on its way - and I can underline that it is absolutely essential.

European research projects – like the THORAX project – have taken up that point. The development of better and more adaptive restraint systems is another issue and technological demand for future vehicle safety.

This does not only include the use of dual stage airbags, but also occupant detection and classification systems and some more technologies, converting the seat into the heart of occupant safety.

There are further technological challenges and demands for the active safety systems. Those systems are claimed to have a very high safety potential, in particular because they are able to completely avoid some – unfortunately not all - accidents. However, in order to progress, current technological limitations have to be overcome. Faster sensors, faster mathematical algorithms, faster brake pumps – e.g. for autonomous emergency braking systems – need to be applied to fully exploit the potential of active safety systems.

Cost benefit considerations, but also consumer acceptance and desires, will drive this process.

A recent study from Sullivan and Frost has shown that enhanced braking systems on the one hand and passive safety systems which protect the car occupants in the event of a crash on the other hand, are most requested by the consumer.

Coming back to the protection of vulnerable road users, another study has shown that around 30% of consumers in Europe are willing to pay for pedestrian safety systems.

Ladies and Gentlemen,

At the end of my keynote speech, I would like to explicitly encourage you once again in your work for road safety:

Keep on working with great commitment and joy - so that we will be able to continue to set the right vehicle safety policy priorities in the future. It is your responsibility to point out the most cost efficient and safety relevant measures to further reduce the number of road traffic casualties.

I ask you to keep a strong lid on all aspects of elderly and vulnerable road users. By all means, road safety policy will remain a first-rate task for the whole society. Your conference gives an important contribution to this issue.

Thank you very much for your attention.