## **PRINCIPLES**

## Instead of giving detailed technical specifications to the "usability of EE-s" the expert group should agree on the following principles:

- In spite of increasing and extending the safety level of occupants to evacuate the bus in all major past- accident situations, the required number of emergency exits should be reduced and the sitting requirements simplified in the existing R.107
- There is no general, large scale structural deformation on the superstructure in the past- accident position, so the exits are functioning, but one emergency exit may be blocked (by local deformation, fire, etc.)
- When the bus is standing on its wheels (or on its roof) the service and emergency doors are enough to evacuate the bus (this was proved by tests and by real accidents). The best emergency exits are the doors: first the service doors, after that the emergency doors.
- When the bus is lying on its side, the usable emergency exits are the rear wall emergency window and the escape hatches (and possible, but not required option could be the windscreen)
- The lower deck of a double deck vehicle may have escape hatches on the floor (low floor, nothing below it), this is allowed in the existing text as well
- The breakable side wall emergency windows are unusable and useless in all past- accident situations (it was proved by tests and by real accidents), therefore they are not required and counted among the minimum number of emergency exits, but side windows could be allowed if certain technical requirements are met, as extra emergency exits to provide extra safety
- The (emergency) exit requirements in relation to their minimum number and location (sitting) shall relate to the individual occupant passenger and driver compartments, rather than to the complete vehicle (many times there is only one compartment in the bus, in this case the two approaches coincide)
- In the practice, separate passenger compartment, the capacity of which exceeds 100 passengers does not exist
- The required minimum number of emergency exits shall relate to the number of occupants in the compartments (passenger, driver, crew compartment)
- The airport buses operating inside the airports and the rail guided special buses are not covered by regulation R.107.