

# ACCESS ALL AREAS

Jon Lawson caught up with Temoinsa's commercial development manager, Monica Gregori, to get her wish list for wheelchair-friendly designs

**CREATING A PRACTICAL,** stylish interior for able-bodied passengers is a challenging enough task, but consider the difficulties faced on a daily basis by those who must rely on a wheelchair for personal mobility. Monica Gregori has, and she believes that future designs must be more inclusive. "Take floor height" she says, "Wouldn't it be nice if the platform was always at the same level, so wheelchair passengers, or indeed parents with push chairs could get in and out easily?" Options to solve this issue are not always cheap.

While some train makers, like Bombardier, have mastered carriages that can be raised or lowered (sometimes called 'kneeling'), many specifying authorities are reluctant to make the necessary financial commitment. Perhaps a cheaper alternative would be to have cars with different ride heights, so passengers could board where most convenient then, if need be, move to an adjacent carriage with a different floor height. Costly control electronics can then be avoided.

Renfe Spain for example is sensitive to accessibility and its new fleet of suburban trains (CIVIA) are fitted with a low floor in one coach.

"The other alternative" continues Gregori "is to have a section of the platform that

can be raised. Again, a decent solution, but not a cheap one."

When inside, Gregori believes a balance needs to be struck between securing wheelchairs safely, but designing a quick release system in case an evacuation is needed. "There are a lot of clever machines available at the moment, but for me its enough to have a suitable space with a belt system. Complex systems could be prone to failure if there is an accident."

Better still, Gregori maintains that properly tailored modules should be included in the design right from the outset. "It all starts with the doors of course, which should be designed to allow wheelchairs in without impediment. Then hand rails need to be carefully placed, so mobility is possible inside the carriages, and toilets need to be large enough to allow for the convenience of users."

Temoinsa is currently collaborating with Renfe to design and supply disabled toilet modules to the meet requirements of wheelchair users. Stemming from Temoinsa's involvement, its R&D department developed the first toilet module for visually impaired passengers jointly with ONCE (the Spanish Organization of disabled people). Temoinsa also collaborates with Universities to advance technology in these areas.

When considering evacuation, Gregori reckons: "What is really

needed is a decent lighting system to guide people out in case of an emergency. Fibre optic technology can be used in the floor, on the walls and around the doors in order to clearly mark the route – vital if the carriage fills with smoke."

Despite Temoinsa's recent design successes, the options described have not figured highly. "Every project we do is a loan. It is necessary that these type of requests come from the local transport authorities. Changes may eventually come from them, but I regret not yet. It's not as if the technology required is years away... but the will to do it may be. Much of the incentive may have to come from the travelling public at large."

There are other options that are available to give greater access. For the visually impaired, Gregori is more confident that things can be done, even where retro-fit is concerned. "Take a simple public address system – why not bring in a tactile element? You could install a board with raised elements near to a door so that blind passengers could feel route information. Also hand rails could be made to vibrate to indicate whether a station is near or which door to use. But again, the commissioning authorities will have to drive these changes. At the moment we are letting disabled passengers down, especially in Europe." **END**

This carriage end was for Talgo. There is enough space for wheelchair users to move around if required

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Temoinsa designed this toilet for Alstom

