



# NEWS VIEW 154

## Signalling is not that expensive after all, is it?

If you would have to go for heart surgery, would you choose the lowest bidder surgeon?

Focusing on railway signalling, operating a High-Speed-Line, a true HSL, i.e. a line with an operation speed of 300 km/h or more, and with, less us say, 200 trains per day or more (that is with over 100 per day per direction), and having over 50% of the seats in the trains running that are actually occupied as an average, then the railway specification does not need to be hundreds of pages long. A few pages will do the job. However, this is as soon as the overall quality for a certain price and the associated reliability is the number one driver when choosing among the various suppliers solutions, isn't it? Especially since safety/SIL 4 (Safety Integrated Level 4 following CENELEC/European rules) is just taken for granted with such applications.

The same approach applies to the mass-transit business: in that case, for a metro line transporting over 25 000 passengers per hour per direction (pphpd) at rush hours with small size type of rolling stock (typically 15 m long cars and 5-8 cars per train), or for a line transporting over 50 000 pphpd with large cars (e.g. 20-25 m long cars running in 8-12 car consists). Quality, i.e. the quality of the design of the architecture, of the realisation of the project, and a direct output that will be the reliability of the complete system, is indeed the item that has the most paramount importance.

Let us however consider that not all operators and not all applications have the same level of tolerable risk. The requirements and the design of safety, in association with the system availability, mean that it is neither advisable nor professional to compare two solutions for a same project just by comparing their prices. This could lead to compare solutions that have, in fact, not much in common, that have, especially, nothing to do together when it comes to residual risk comparison.

Another point to keep in mind when comparing two solutions for signalling a project is the maturity; both the maturity of the designer of the solution and the maturity of the operator that intends to implement it on his network. The appreciation of the safety criteria by both together is a critical challenge to meet.

Jacques Poré

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