

Past and Future of Station on Spanish High Speed Network

I would like to provide with this presentation a quick sight of past and future evolution of Spanish stations.

Toledo-Chamartín-Salamanca-Sagrera

Which one of these stations do you prefer?

CONTENT

This diagram represents the evolution of Spanish stations along the time. Up to the fifties stations were conceived as monumental items. In the 60's and 70's their functional aspects were the main concern of designers, around the 80's their commercial aspect arose as a main issue. From the turn-of-the-century a bit of everything exists and.... What's next? But let's watch this evolution more in detail

MONUMENTAL STATIONS. Atocha

During its first century of existence, stations were considered an urban landmark and located in monumental buildings. Functionality was taken into account, as well as its their accessibility conditions, but not as a priority. On one hand they were not a big part of railway companies assets and profits, even if maintenance expenses were low, as a result of labor cost and the scarce technological development of facilities and systems. Intermodality was hardly mentioned, as other means of transport were often assessed as competitors of railways.

FUNCTIONAL STATIONS. Sevilla Santa Justa

Heavily influenced by avant-garde architectural movements, In post-war period and the most importance was given to buildings as functional facilities which must satisfy users' needs. Functional approach grew dramatically on designers' and developers' considerations. Stations, even if they kept a central position in urban landscape, were less monumental but more practical. Their artistic character collided sometimes with their conditions as transport facilities, and many monumental characteristics were lost along that fight. Accessibility was little by little been taken into account. Business approach was at its very early stage.

COMMERCIAL STATIONS. Vialia Estación de Málaga

After a period of decadence of railway due mainly to road and aerial transport completion, High Speed appeared in Europe in the early 80's, two decades after its birth in Japan. Approximately at the same time, a new prospective appeared on stations' business. Due to their potential of mass access and transit, and the increase of passenger flows, stations turned into shopping malls, or at least increased retail activities' development. Profitability came hand to hand with maintenance cost reduction, by the way of energy efficiency, efficient technology implementation and smart design of facilities and systems.

A new concept turned out to be a relevant factor. Railway began to be considered not a competitor of road or plane, but a structural component of a complex net of

complementary means of transports in urban and/or regional areas, so intermodality appeared as a main target of urban and transport designers.

TODAY...

The increasing needs of people's mobility stretched the capacity of former transport networks. Then, new concepts appeared as 'seamless' rides, for which the possibility of rapid transfers from one mean to other where crucial. Urban expansions puts high pressure on commuter systems, cheap flight permit an increasing population to travel around the world, road development foster interurban and interregional connections, and all together request easier and more flexible transport terminals in which each means enrich each other with their customers. A phenomenon that appeared early in American and European towns is now universal and requires more and more resources for its right development and management

IN THE FUTURE...?

And what happens now?. Every period has left some relevant component on stations design: centrality, urbanscape landmark, transport hub, efficient building, profitable business. But, what are the possible directions of future improvements? The most important factor after Y2K was the sky-rocket development of IT , but the dramatic increase of urban areas all over the world are not the least point to be taken into consideration.

Prospects have been made of possible developments of vertical buildings...

...or even trains without station, in which transfers from HS to commuter trains are made in movement, permitting HS trains not to stop and consequently shorten riding times....

...and equally, new IT technologies can reach never seen levels of dynamic and intelligent information and can not only provide services that fulfill users' need, but even anticipating them by means of massive data process...

... a future in which stations will be the result of the assimilation of its bicentennial heritage and state-of-the-art technologies, with a new approach that considers all possible needs of passengers, and which can equally provide excitement for all customers' emotions...

... in which past meets present and future, a balance between practical and emotional is reached, and in a process of constant renovation, we keep an eye into any sign of times that surprise us with an unexpected prospective.....