

Case study 2004

Open-plan offices

Closed offices

Flexible offices

Meeting rooms

Restaurant

Atrium

Bank branch

Call centre

Acoustic comfort

Concentration

Speech privacy

Sound-proofing treatment

Sound-absorbing treatment

Sound masking

How can we reconcile the reduced sound-proofing of glass partitions and sliding doors with greater expectations in terms of speech privacy ?

The architect and the acoustician on the project recommended the installation of full partitions and swinging doors.

LogiSon™ sound masking allowed the client's preferences to be met in terms of transparency while raising levels of comfort and concentration in open-plan offices.

Capital International Geneva



Since Novembre 2004, the Capital International company has occupied 8000 m² in a new building located at Lancy in the southern suburbs of Geneva.

Designed by the architect Jean Nouvel, the building is a tribute to transparency and the fashionable "cold ceiling" technique. These choices make obtaining a high level of user acoustic comfort all the more critical.

Indeed, sound-proofing the glass façades and the thermal exchange at ceiling-level bring about a particularly low background noise level inside the building : 29 dBA.

Paradoxically, internal noises are heard even more clearly and disrupt work owing to their informative content : in open-plan offices, conversations become understandable over great distances and the sound transmission losses in closed premises becomes insufficient for ensuring the speech privacy of discussions.



AN ACOUSTIC SOLUTION AIMED AT USERS

Capital International wanted to delimit closed offices using glass partitions and sliding doors. The slight performance of this solution and the very low level of the background noise did not allow the speech privacy of closed offices and meeting rooms to be guaranteed *vis-à-vis* the open-plan areas; nor could the intrusion of noise from the open spaces into closed areas to be avoided.

The architect and the acoustician then recommended the creation of full partitions with solid swinging doors with acoustic seals.

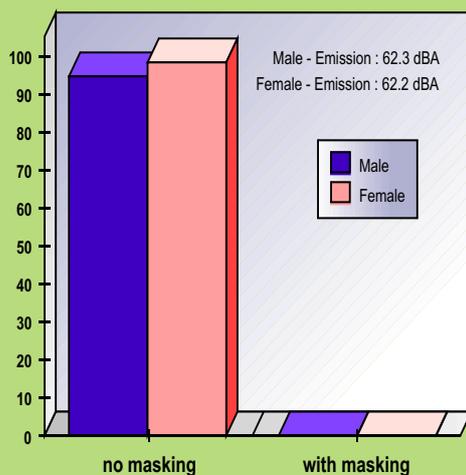
Having ample experience from other sites, Capital International placed its trust in the advice of Environment Acoustics and in sound masking.

The installation of a LogiSon® Acoustic Network allowed the client's initial choice to be maintained whilst guaranteeing the levels of comfort and concentration expected nowadays by staff members in open-plan offices.

A brief anecdote : after staff members moved in, only two meeting rooms were deemed to be noisy on an acoustic level. This discomfort was attributed to an overly high level of sound masking. After examining both rooms, it emerged that these were the only two spaces in the building which did not contain sound masking equipment, owing to cluttering in the ceiling void. This shows that the perception of sound masking is difficult, even for people who are aware of it, owing to the 100% random nature of the sound spectrum generated by the LogiSon® Network.



Intelligibility score (%)



RESULTS RECORDED

The speech privacy scores in closed offices *vis-à-vis* the corridor was measured in front of the sliding glass doors.

In the absence of sound masking, the intelligibility score exceeds 95 %.

The presence of a sound masking system not only allows intelligibility levels to be reduced to zero, as illustrated on the graph opposite, but also ensures that conversations will not be audible, thus providing the complete confidentiality expected by the occupants.