



**Main contractor**  
**Acoustic consultant**  
**Architect**  
**Property owner**  
**Solution**

**BAM Contractors**  
**Daidalos**  
**XDGA**  
**SO Gent**  
**High-performing floating floor system for a sports hall (circa 900 m<sup>2</sup>)**

■ In the Oude Dokken, along the Schipperskaai, SO Gent is responsible for the realisation of a new city building with a day-care centre, an extracurricular day-care centre, a primary school and a community sports hall. The building was designed by Xaveer De Geyter Architects (XDGA).

■ The sports hall is located on the third floor and is almost 900m<sup>2</sup>, and is intended for various sports activities. To protect the spaces underneath from noise pollution during sports, the acoustics consultancy prescribed a high-performance floor system based on discrete rubber pads in combination with a high air cavity. Because the subfloor is not flat but consists of several height levels, and also because of the very large number of pipes running over that subfloor, it was decided to apply a system with maximum flexibility, namely the CDM-LAT floor system. In this system, the sound-absorbing pads can still be moved easily or even rotated if necessary. On top of these CDM-LAT battens, wooden battens were installed with various heights to compensate for the different height levels of the subfloor and thus achieve a flat formwork floor. In this way, cavity heights of at least 170 mm and up to 270 mm were achieved, in which, among other things, large drainage pipes could also be incorporated. The cavity was filled with 100mm mineral wool to avoid a sound box effect, and the floating floor consists of 120mm reinforced concrete. In this way, a highly efficient “mass-spring-mass” system is created with maximum sound insulation both for impact and airborne noise.

