

Esport Arena Helsinki

Spazio Mondo interviewed Mr. Heikki Paakkinen, Architect, M.Sc., Managing Director of Architect's Office Holvi Oy Ltd of Esport Arena in Helsinki, Finland:

“Is Esport characterized by some particular innovation from the architectural point of view?”

Esport Arena is situated in Tapiola garden city in Espoo. Tapiola is famous for its beautiful architecture and nature. We have paid a lot of attention to create a building that suits the demanding surroundings. We also wanted to create an atmosphere where people like to stay and feel relaxed and refreshed during and after their visit.

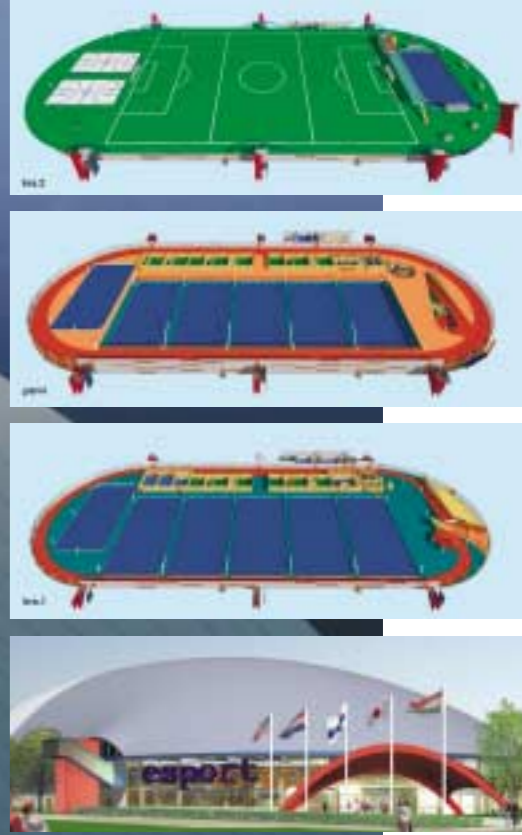
It was challenging to combine all the different functions and sports together in one building while connecting this to the existing older sports centre, the Esport Center. As far as we know this is the only full-size football field that exists on the second floor.

Is Esport also characterized by innovations in terms of new products being installed or new technologies?”

The constructional solution of the Esport Arena has been very carefully studied. Since there are no existing examples of this type of building, its structural principles had to be planned from the very beginning. The building is large in comparison to its weight, so it had to be anchored to the hard rock in the ground to prevent it from being blown away.

The floor construction used in Esport Arena is an innovation mainly used in ship building: it is a laser welded steel sandwich slab. The slab is made fireproof by adding a layer of steel reinforced concrete above.

Does something similar to this already exist somewhere else in the world?
There of course are sports centers with different combinations, and this one has its own combination. In a way it is the only one of its kind in the world.



“As far as we know this is the only full-size football field settled on the second floor.”



Holvi Oy Architects

Architect's Office Holvi Oy Ltd was founded in 1988. The speciality of this company is to create excellent architecture and design in exceptional and demanding environments; they combine the forming of space with skilful management of forces and structures. Main partners in design are the Tritthardt Ingeniure in Germany and the Pohjanmaan Insinööritoimisto Engineering, Helsinki, in Finland.

The concrete also connects the steel slab to the steel beams resulting in a load bearing composite structure.

The air supported roof construction is thermally insulated – the first of its kind in the world - and it is made fire resistant by using fire proofing material in the lower part of the roof. The air is pressurized by two pumps and one diesel engine as a reserve, and controlled by automatic pressure and movement control.

What was the reasoning behind the balloon shaped structure?”

The balloon shape is optimal for ball games and the overall architecture of a gigantic building of this size. The space inside is high where it needs to be high and low where height is not required. It follows the course of a flying ball and while inside the hall is spacious, outside it looks much smaller. The closer to the building you stand, the smaller it looks.

Exactly how long did the construction last?”

The installation time has been very short. This was due to the use of more than one crew working on the different floors. The constructing of the building did not take very long; its steel skeleton was erected in the autumn of 2004 and the finishing works were carried out in summer and autumn 2005.

One has to remember that the Finnish winter is long and cold: the lowest temperatures were around -30° Celsius, and at that time there was no roof or walls!

How did you manage the unloading and the access to 2nd and 3rd floors?”

At the building site we used mobile cranes, which needed reinforced platforms because of the soft and wet soil. The steel elements were comparatively light to lift and install; especially the steel slabs. The concrete was almost all pumped to its position, only some prefabricated concrete elements were used. Also the Mondo football turf sand and rubber granulate, the Ecofill®, were pumped to their place.”

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	Track & Field Super X Performance	Weight room Sport Impact	Common Areas Harmoni 4 mm

