King Baudouin Stadium

Sport Facility Innovation Profile

Basic Information

Country:	Belgium
Address:	Marathonlaan 135/2, Brussels, 1020
Owner:	City of Brussels
Manager:	City of Brussels
Email:	venelin.dobrev@sportsandtechnology.com
Year of Building:	1930

Facility Types

Outdoor courts of artificial or natural grass

Is the facility part of the sports complex?

No

Description

The King Baudouin Stadium in Brussels, Belgium, is the largest stadium in the country and the official home of the Belgium national football team. Opened in 1930 and renovated in 1995, it has a capacity of 50,093 seats and hosts international football matches, athletics events, and concerts. Featuring a grass pitch and modernized stands, it remains a key venue for Belgian sports despite ongoing discussions about a future replacement.

Size

Indoor Size: 30000.0 m²

Outdoor Size: 40000.0 m²

Other relevant information about the sports facility

Belgium Football Team’s hosting stadium did not have any separate collection scheme and all waste generated in the stadium ends in general waste. The main objective of this initiative was to improve waste management during games.

Sustainability Pillars

Materials

Subcategories

Since the stadium didn’t have any separate collection scheme at the time of the beginning of the project and nonetheless no data on total waste quantities, RBFA decided to run a waste composition analysis in order to understand better the needs and potentials of a separate collection scheme. SUEZ and Bruxelles Proprete (Brussels Public Cleanliness Company) run a sampling of the waste generated inside the stadium’s premises (A), waste bins outside the stadium’s premises (B) and litter (C).

Innovation description

Since the pilot stadium that run this pilot test serves as the host ground for the home games of the Belgian men's national teams that plays only up to 8 home games per year, repeating this measure could bring certain benefits and improved waste management performances. The only costs that could be avoided with permanent infrastructure for selective waste collection is the price of the equipment (its rental and placement/collection). The savings could be €2000 per game. The treatment costs are expected to remain the same. This is why it was advised that the owner of the stadium – the city of Brussels to consider installing permanent infrastructure, as the stadium is also used for athletic competitions and concerts. It could bring added value, as other event organisers could benefit from this already available infrastructure.

The results of this pilot test were more than satisfactory, as the new collection scheme managed to redirect 120 kg of Packaging Material (PMC) from the residual waste. This basically meant that the capture rate of PMC was 83.2%, since 120 kg out of 144.21 kg of PMC was captured. It also reflected in the total amount of residual waste inside the stadium's premises dropped from 1375.17 kg to 1120 kg. Raising awareness and PMC collection pilot was implemented outside the stadium's perimeter where 10550 cans were collected and amounted up to 2.85 tons of empty beer cans which were redirected for recycling.

Innovation

Type: Process innovation

Pros of the Innovation

1)Waste Diversion & Recycling - 120 kg of PMC waste was redirected, achieving an 83.2% capture rate. Outside the stadium, 10,550 cans (2.85 tons) were collected for recycling, reducing landfill waste.
2) Cost Savings & Sustainability - Brussels approved permanent waste bins, benefiting football, concerts, and athletics. Avoiding temporary bin costs could save €2,000 per game.
3) Residual waste dropped from 1,375 kg to 1,120 kg, and littering decreased through strategic collection points

Cons of the Innovation

Investment & Costs – Installing permanent waste bins requires upfront funding from the City of Brussels, with additional costs for maintenance, signage, and staff training.

Limited Impact – With only 8 home games per year, the impact on football alone is low, but the investment benefits concerts and athletics too.

Overflow & Littering – Large crowds cause overflowing bins, so RBFA plans large-capacity containers, but funding and logistics remain challenges.

Facility Indicators

Visits per year:	600000
Estimation Waste and Resource Savings (%):	Medium (between 30 and 70%)

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