PLANET

SUSTAINABILITY CASE STUDIES

Tokyo 2020 Bio-plastic turf



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Objectives

- Ensure the sport of hockey contributes to sustainable development
- Implement tangible actions against climate change through an innovative turf that uses plant-based and recycled materials.
- Reduce by 66% the amount of water needed to maintain the turf compared to the one used at the previous Olympic Games





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Description

- Poligras Tokyo GT, a new pitch incorporating bioplastic, was used during the Tokyo Olympic Games contributing to the vision of a carbon-neutral event
- The surface also brings significant reductions in water needs, requiring two thirds less water compared to previous surfaces
- The pitch has been installed at the Oi Hockey Stadium in Tokyo and will also be used for the FIH 2022 World Cup tournaments
- The surface is made from up to 60% of sugar cane derived plastic and over its life cycle up to five kilograms of carbon emissions are saved per every kilogram used of this bio-based polyethylene in comparison to other plastics
- The turf is then laid on a shock pad made from fully recycled rubber and a binder manufactured with reduced carbon emissions.





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Results

The innovative solution of the surface developed for the Tokyo Olympic Games satisfies multiple stakeholders at different layers of sustainability:

- On an environmental level, it reduces the carbon footprint of the product by incorporating a renewable raw material, it requires less water and can be used on permanent or temporary infrastructure.
- On the sports side, the new turf provides enhanced comfort to athletes, and the excitement and atmosphere of playing in front of large crowds in permanent stadia.
- On a social level, by providing improved and more attractive game features and allowing use of temporary pitches in existing stadia with permanent infrastructure, the possibility to take the sport into new areas, creating the chance to reach new audiences and potential players in the development of the sport.
- It also makes economic sense. Less required water level means lower maintenance costs. Being able to efficiently transport the turf to any major stadium means access to scaling audiences

