IF Sustainability Project

FIH BIO-PLASTIC PITCH
The world faces significant challenges across a wide spectrum of economic, social and environmental matters. The Olympic Movement has both an opportunity and a duty to actively contribute to the global sustainability debate in line with its vision of “Building a better world through sport”.

With this in mind, and in response to Olympic Agenda 2020, the International Olympic Committee (IOC) launched the International Federation (IF) Sustainability Project in 2016 to obtain an overview of IFs’ sustainability initiatives – identifying common topics, challenges and good practices while also sharing information among the IFs.

One outcome of the project was a series of case studies illustrating how IFs are actively contributing towards a more sustainable world.

As part of the IOC’s objective to “profile the role of the Olympic Movement in sustainability through the aggregation of information and collective reporting”, it was agreed that the identification and sharing of information contributes to the holistic integration of sustainability and should be continued. These case studies, which now also showcase National Olympic Committees’ (NOCs) best practices, form part of a strategic support system given to the Olympic Movement through the IOC Sustainability Strategy.

Each case study is aligned with one or more of the IOC’s five sustainability focus areas: infrastructure & natural sites; sourcing & resource management; mobility; workforce; and climate. They are also aligned with one or more of the United Nations’ (UN) framework of 17 Sustainable Development Goals (SDGs), which provide a common framework for organisations to explain how they plan to contribute to sustainable development and tackle the key global sustainability challenges.

This framework is pivotal for the Olympic Movement – in September 2015, the UN General Assembly confirmed the important role that sport can play in supporting the UN’s 2030 Agenda for Sustainable Development and its SDGs.

“Sport is also an important enabler of sustainable development. We recognise the growing contribution of sport to the realisation of development and peace in its promotion of tolerance and respect and the contributions it makes to the empowerment of women and of young people, individuals and communities as well as to health, education and social inclusion objectives.”

Paragraph 37, UN 2030 Agenda for Sustainable Development
FIH develops a field of play to be used for Tokyo Olympic Games with up to 60% of bio plastics

IH welcomes the development and launch of the latest and one of the most sustainable hockey turfs ever used in international competitions. Poligras Tokyo GT, a new pitch incorporating bioplastic, will be 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. According to the manufacturer, 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.

The manufacturer claims the newly introduced pitch has been designed to keep the surface temperature ten to twenty per cent lower than other pitches. This, along with the design of the surface means that the new surface requires two-thirds less water than the one used in previous Olympic Games while offering more comfort to the athletes.

This significant reduction in water use is due to the increased emphasis the FIH places on the surfaces used for hockey being environmentally sustainable, through their FIH Quality Programme. Other benefits include enhanced durability, greater resistance to UV degradation and enhanced toxicology criteria, all designed to ensure safe surfaces, with extended life cycles, with reduced impact on the environment.

Looking to the future the goal of FIH is set on having surfaces that will not require any water at all, in order to provide safe and acceptable turfs for top-level hockey. While this would translate into a major environmental milestone it can also mean that Hockey could reach new places where water is a scarce resource. Linked to this innovative challenge, the FIH is also focused on the circular economy and ensuring surfaces can be fully recycled when they reach their end of life.

Following the creation of this new surface, FIH has seen a major development for the sport of hockey. The same turf surface that
will be used as part of the Olympic Games was used for the first time in 2019 as part of a ground-breaking portable pitch system. On this occasion, Great Britain and New Zealand played in front of 12,000 fans in London, at the Twickenham Stoop, traditionally home to the English Rugby Union’s Harlequins.

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.

EVALUATION
In alignment with the vision set for the Tokyo Olympic Games and the Olympic Agenda 2020, FIH has taken a historic step by introducing a field of play that can have a positive impact. The new turf brings a more environmentally sustainable solution both, on the sourcing of its fibres and the required water needs for its use. Through this innovation, game performance is improved, and it enables the creation of a versatile temporary infrastructure solution that can take the game to new and larger audiences with positive environmental, economic, and social impacts.

BENEFITS
• The surface requires two-thirds less water than previous surfaces making it more sustainable to the environment while providing significant cost savings.
• Out-of-the-box thinking led to the creation of a portable reusable version of the surface that can be temporarily installed in any major stadium in as little as six days. This creates commercial and social opportunities allowing the sport to reach new territories.