



ENGINEERED
FOR HOCKEY

Creating a Sustainable Future for Hockey

The development of dry (non-irrigated)
hockey turfs

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INTERNATIONAL HOCKEY FEDERATION
FEDERATION INTERNATIONALE DE HOCKEY

Since hockey first embraced synthetic turf surfaces in the late 1970s, players have preferred to play on them when they are wet. Experience shows that water provides fast, predictable, and consistent playing conditions that allows players to perform to the best of their ability.

Watering a hockey field does, however, come at a cost, both financially and environmentally, and it is increasingly being recognised that this is no longer a sustainable policy for hockey. Therefore, the FIH has challenged the synthetic turf industry to develop hockey turfs that retain the desired characteristics, but without using water.

Today, we are starting to see the first of these new surfaces enter the market, and the FIH is calling them 'Dry (non-irrigated) Turfs'.

- ✓ Conserving water to help protect the planet
- ✓ Cheaper fields – no need for expensive irrigation systems
- ✓ Improved carbon footprint – no water treatment or pumping to site
- ✓ Reduced operational costs

- ✓ Replicating the playing characteristics of wet turfs
- ✓ Designed to used when dry or wet (rain)
- ✓ Can be used with self-wetting hockey balls

But how do these new surfaces perform? That is the key question. The FIH *Hockey Turf and Field Standards* (HTFS) describes the performance, player welfare, surface durability and environmental characteristics hockey requires. The HTFS has five categories of performance, with the Global category being the one intended for top-level hockey.

Currently the Global category requires surfaces to be watered prior to use. It is the

FIH's intention to remove this requirement, but before we can do this, we need to know how Dry Turfs perform.

To do this we need the new turfs to be installed so players can assess them and provide feedback.

FIH Innovation Category for Dry Turfs

A new hockey field is a major investment and field owners will be understandably cautious about investing in Dry Turfs without the assurance they are suitable for the level of hockey that will be played on them. The FIH is therefore updating its *Hockey Turf and Field Standards* to include an innovation category.

New performance tests to measure:

- 1 Ball speed
- 2 Oblique ball pace and rebound
- 3 Stick-surface friction
- 4 3D surface stiffness

Based on research undertaken by the UK's Loughborough University and specialist sports surface testing laboratory Labosport, the Hockey Turf Innovation Category has new performance tests that allow us to measure the properties previously provided by the water on a wet turf.

The Hockey Turf Innovation Category defines the minimum performance required from a hockey turf to allow it to be considered a Dry Turf. At present, this is a slightly wider range of performance than that found on wet hockey turfs, but it is hoped that the ranges of performance can be tighten once we know exactly how the new types of hockey turf perform.

To assist manufacturers and consumers compare the performance of Dry Turfs to wet hockey turfs, the Innovation Category also provides guidance on how current Global category turfs perform. Ideally, we hope there will be no differences.

As dry turfs are installed, the FIH and Loughborough University will organise player trials to establish just how good the new surfaces are. With this data we will be able to establish where the limits of acceptable performance can be set and amend our *Hockey Turf and Field Standards* to remove the obligation to water Global Category hockey turfs. It is currently envisaged that this will be possible in 2024.

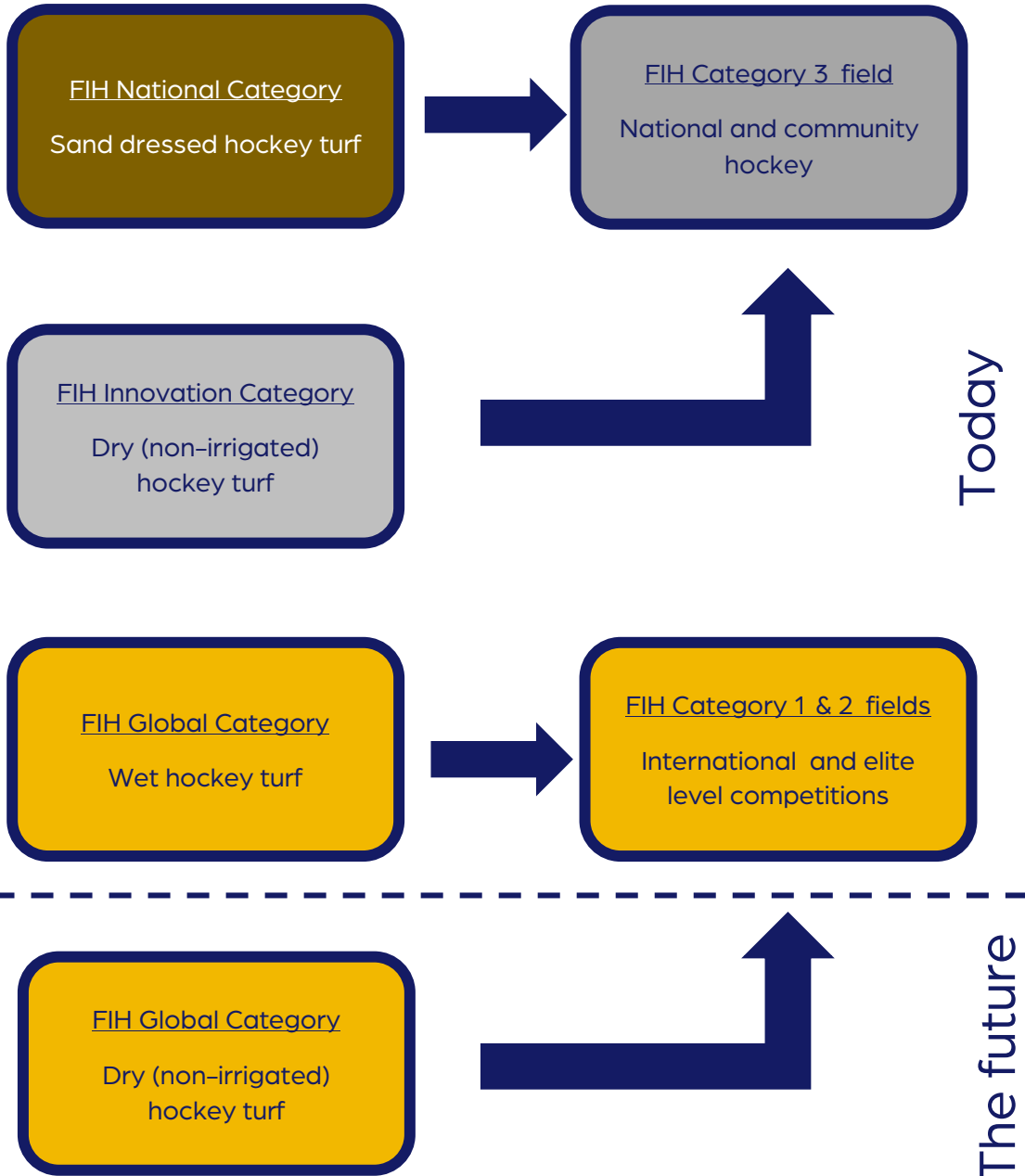
Currently, it is recommended that Dry Turfs are laid on fields that might otherwise have a sand dressed (National category) turf. These are typically fields intended for national and local competitions (FIH Category 3 fields). If a Dry Turf is being considered for a field that would otherwise have a wet (Global category) hockey turf, you should check that the relevant competition rules and regulations, for matches that will be played on the field, allow this.

Once the FIH Hockey Turf and Field Standards are updated to incorporate Dry Turfs within the Global category, it is possible that fields with some (if not all) of the innovation category surfaces can have their FIH Field Certification upgraded to reflect

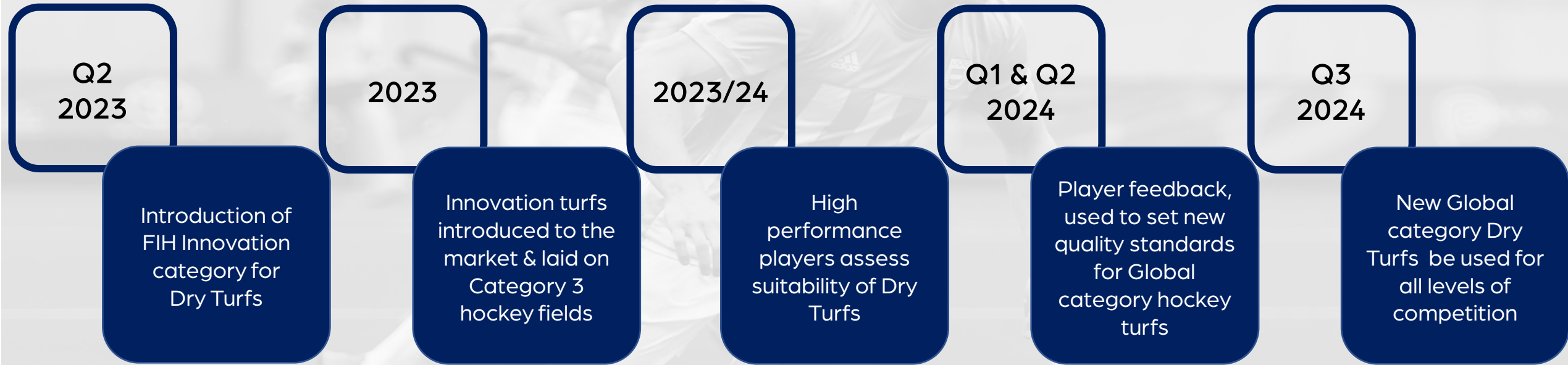
they have a playing surface offering the highest level of hockey performance.

Hockey turfs

Field categories



From concept to approval – the route to the use of Dry (non-irrigated) Turfs by top level hockey



Definitions

Innovation category – a development category within the FIH Quality Programme that defines the minimum levels of performance required from non-irrigated hockey turfs

Global category hockey turfs – surfaces providing suitable playing and safety characteristics for elite level hockey

Category 3 fields – hockey fields used primarily for club and community hockey

Category 1 and 2 fields – hockey fields having Global category hockey turfs that are used tier 1 international and national club matches.



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