



Building great hockey facilities

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Hockey is

INCLUSIVE	FAN-CENTRIC	OLYMPIC SPORT	But FIH has an AMBITIOUS STRATEGY
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Strong continental representation



Played for life with
NUMBERS GROWING
at both ends



200million+



watched the 2014 World Cup on TV

with rights sold in more than 80 countries



Moved to quarters in 2014 to
improve fan experience



First played in
London
in **1908**



Excellent
anti-doping
record

3rd

biggest sport at 2012 Olympics
in terms of ticket numbers sold
630,000 / 97% sold

To raise the global status and
popularity of hockey

We have a revolutionary ten year strategy designed to unite the hockey community - and we need support from the whole hockey family.

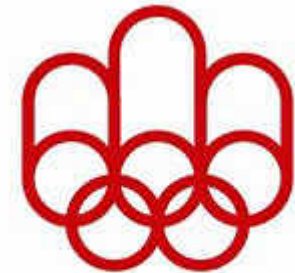
For the first 100 years our sport was played on natural grass – and in some countries it still is.....



But then we
discovered synthetic
turf and our game
changed for ever



1. Faster
2. True bounce
3. Consistent and predictable
4. Better suited to technical players



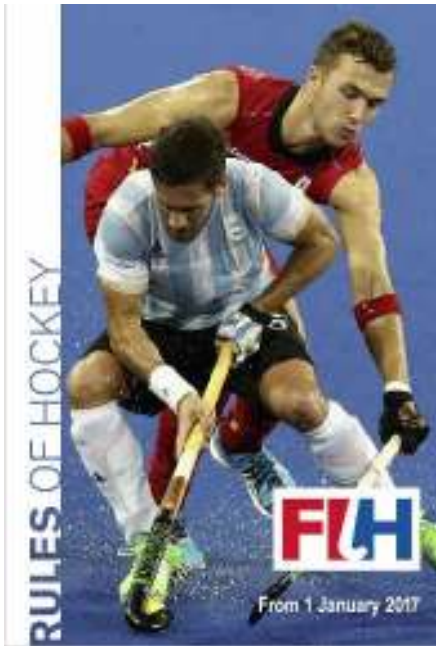
Montréal 1976



However, hockey can still be played on any suitable surface.

Restrictions on playing surfaces are regulated in competition rules:

- FIH events
- Continental federation events
- National association events
- Community and regional / state competitions



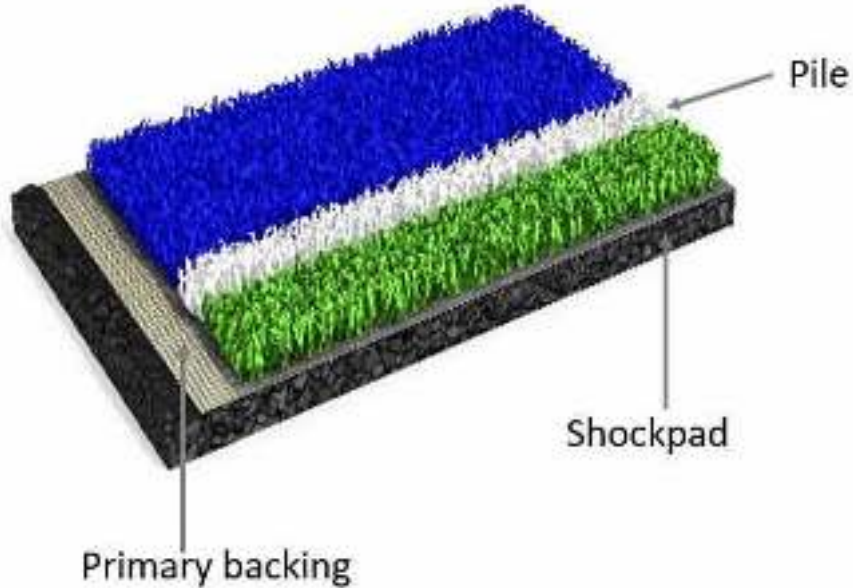
In 2012 we re-wrote
the script



To do this we need great hockey facilities for all levels of the sport, from grass roots to international events. It is our role to set the benchmark and protect those investing in hockey. To do this we created the *FIH Quality Programme for Hockey Turf*



So what is hockey turf?





Non-filled “wet” Hockey Turf



- Used for top level national & international hockey
- Short dense pile carpet, no infill
- Requires irrigation
- Great playing characteristics:
 - Fast
 - True & consistent
 - Low bounce
 - Comfortable
 - Good foot grip
- Good durability



Why does hockey like wet fields?

- Ball control
- Ball speed
- Surface consistency
- Foot grip (some carpets have too much grip when dry)
- To minimise carpet burns



...stitute and shown to ...
the FIH Hockey Turf and Field Stan...
...cts (2017 edition)*. To satisfy the Gl...
...ating at an application rate of 2 l/m².



Sand dressed / sand obscured Hockey Turf



- Used for higher level club / college hockey
- Can be played on under wet or dry conditions
- Good playing characteristics, especially when wet:
 - Fast
 - True & consistent
 - Moderate / low ball bounce
 - Comfortable
 - Good foot grip
- Good durability

Sand filled Hockey Turf



- Used for intermediate level club / school hockey
- Can be played on under wet or dry conditions
- Good durability – ideal for high use multi-sports fields

FIH Multi-sport Textile Surfaces



- Sand dressed
- Used for community level hockey
- Can be played on under wet or dry conditions
- Reasonable playing characteristics:
 - Fast
 - Consistent
 - Higher ball bounce – good for tennis
 - Firmer surface
 - Acceptable foot grip
- Good durability

Longer pile (3G) synthetic turf



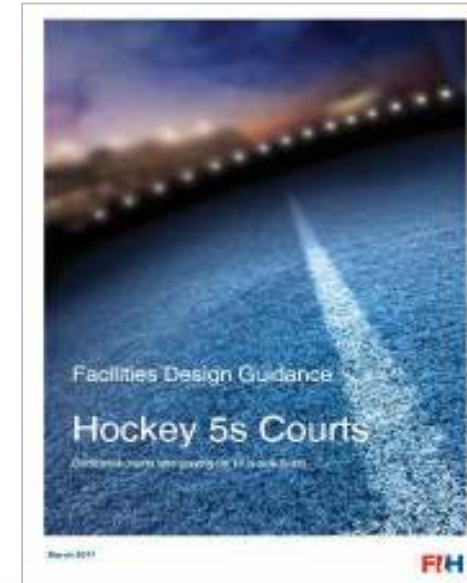
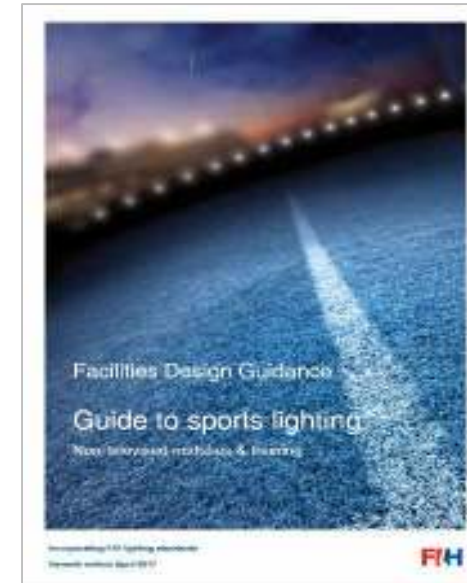
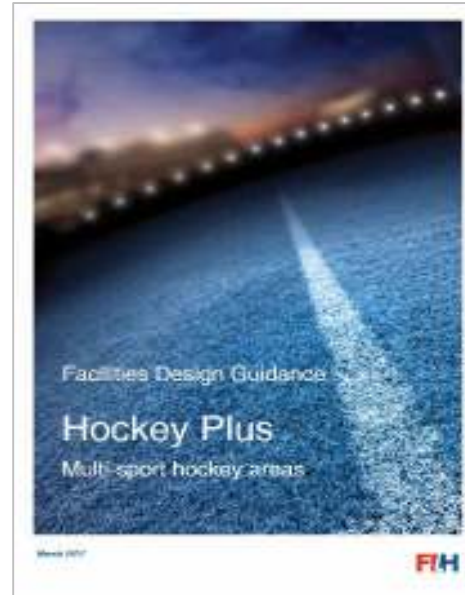
- Rubber and sand infill
- **Designed to replicate natural grass**
 - Slow pace
 - Variable bounce
 - Softer surface
- Banned from hockey leagues by some national associations

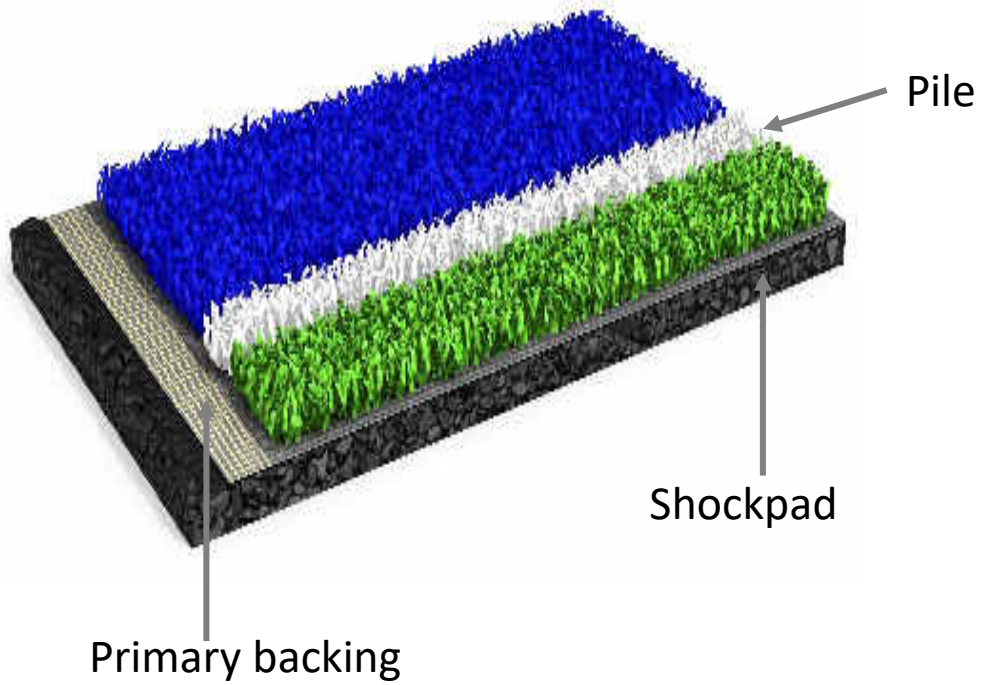


The FIH Quality Programme for Hockey Turf provides comfort for all those building a new field or owning an existing facility by providing international standards of quality-assurance.

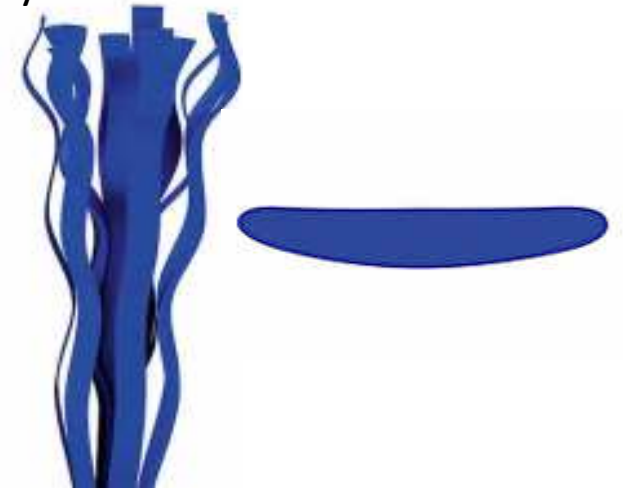
The programme provides consistent and dependable industry standards and ensures the appropriate quality of performance for the intended level of play - whether it is community development, international competition, or anything in between. It protects the investment made by facility owners by ensuring the field meets the expectations of those who will be using it.

Take advantage of our Guidance and Standards – all available on our website





- Typical pile heights 11mm – 25mm
- Typically between 30,000 - 80,000 tufts per sqm
- Typical global field has over 75,000km of yarn
- Each tuft typically has between 6 and 8 individual strands
- Straight or texturised yarns



Shockpads



Insist on the best quality products



Ensure you always specify you require an FIH Approved Hockey Turf

- We have six categories of Hockey Turf, one for every type of facility, from the Olympic Games to grassroots development.
- There are over 100 products manufactured by over 20 different companies to choose from. A full listing can be found at www.fih.ch/hockeyturf
- Each approved hockey turf is made by an FIH Preferred Supplier or FIH Certified Manufacturer. These companies need to satisfy stringent quality criteria before being certified by the FIH.



Every FIH Approved Hockey Turf is independently tested for over 40 different properties



- Ball / Surface interactions
 - Speed & Bounce
- Player / Surface interactions
 - Foot grip and comfort
- Resistance to wear
- Longevity
- Resistance to weathering
- Toxicology
- Compliance to manufacturer's datasheets



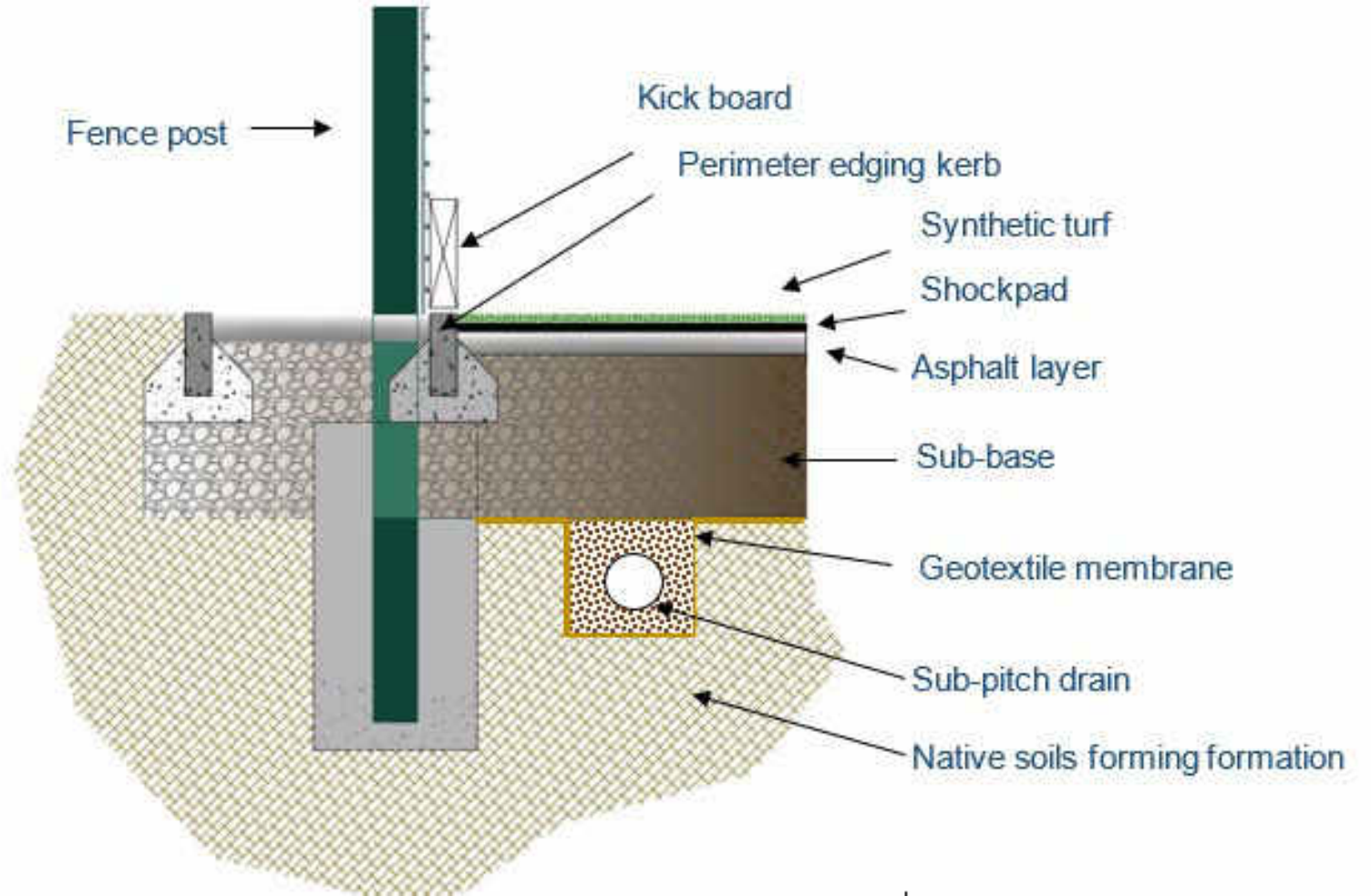
Nowadays hockey facilities come in a range of sizes.

But they are all a major investment and need to be designed and built correctly

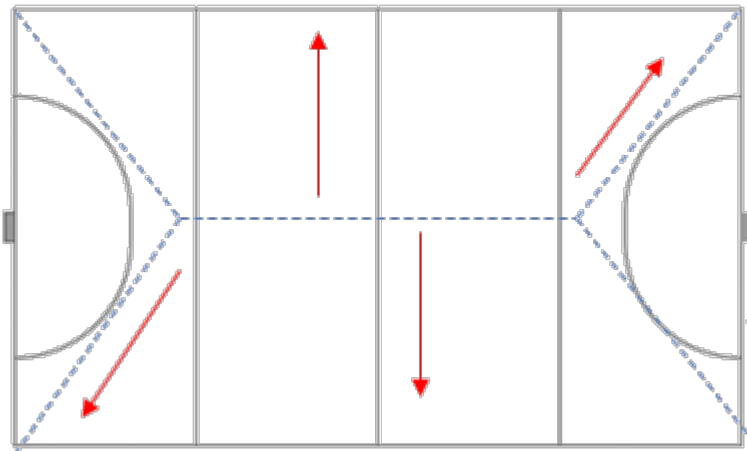


Typical hockey field construction

A field needs to be designed for the site specific conditions



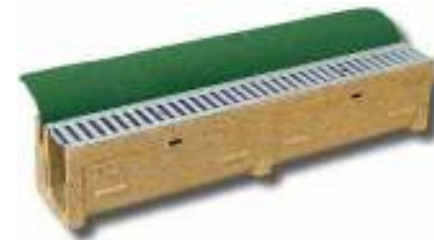
Asphalt base designs



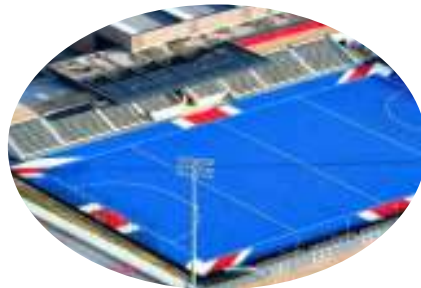
Carpet Installation

If not adequately anchored, non-filled and sand dressed synthetic turf carpets can move during use, resulting in carpet wrinkles and line markings not being straight. To prevent this occurring such surfaces should either be tensioned and clamped along the field boundaries, or be bonded to the underlying shockpad.

When deciding on which method to use, it is worth considering that bonding a carpet to the shockpad can result in the shockpad being damaged when a carpet is removed, possibly meaning that the shockpad must be replaced prematurely.



Field colours



FIH Hockey Turf Standards:

FOP:

- Green – any shade
- Hockey Blue (RAL 5005)

Perimeters:

- no restrictions

Venues wishing to broadcast hockey:

- Hockey Blue (RAL 5005)

All colours should be certified as meeting our UV stability and toxicological Standards



- Global Elite fields can only have hockey markings
- Global category fields can only have hockey & hockey training markings
- National category fields can only have hockey & hockey training markings
- Multi-sport category fields have hockey and other sports markings
- If a non-filled (Global quality) hockey turf is laid on a field without (or inadequate) irrigation, it can only be certified as a National category field and the hockey turf must also have been approved as National category Approved Product – tested under dry and wet conditions
- All colours used on a field (FoP and perimeters need to have been tested and approved



Logos



If located within the FOP all colours must be UV and toxicology compliant with FIH Standards



If located within the run-offs we recommend all colours must be UV and toxicology compliant with FIH Standards

Independent specialist inspections by an FIH accredited test institute

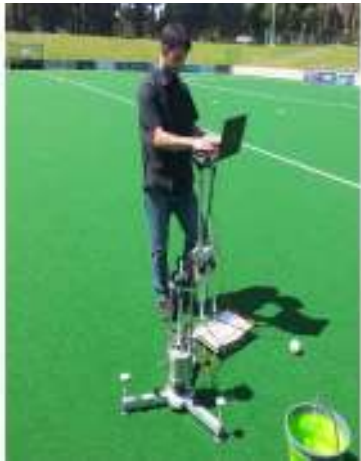


Specify that the facility must be **FIH Certified** as part of the construction process.

We have four categories of certification covering all types of 11 a-side fields and Hockey5s courts.

An FIH field test includes the independent assessment of a range of properties including:

- Ball / Surface interactions & consistency
- Player / Surface interactions – ensuring player welfare
- Performance of the field watering system
- Surface planarity & profile
- Dimensions and line markings
- Surface installation quality
- Verification that the installed hockey turf & shockpad is the product you ordered





A hockey facility is always a major investment.

To help protect you, we developed our *FIH Hockey Turf and Field Standards* as part of the *FIH Quality Programme for Hockey Turf*. These provide consistent, sustainable and dependable internationally recognised Standards, designed to protect those investing in hockey by ensuring facilities meet the highest expectations of players, coaches and venue operators, today, tomorrow and for many years ahead.

To meet our Standards, it is essential that a hockey field is designed and constructed correctly, from conception through sub-grade preparation, drainage, perimeter edgings, base works, asphalt laying, shockpad and hockey turf installation, line-marking and on-going maintenance advice.

Many contractors claim they can build hockey fields, but can they do it consistently, with the certainty that when the facility is completed it will meet our Standards? To help you identify the best contractors the FIH endorses companies that have shown a proven ability to repeatedly build quality hockey fields that meet our Standards. These are the top contractors within the industry and we are proud to award them the prestigious title *FIH Certified Field Builder*.

This is why we strongly recommend you always chose a *FIH Certified Field Builder* to build your hockey field.

- Specialists in hockey field construction with an in-depth understanding of the demands and needs of hockey
- Highest approved quality - independently verified
- Providing you with total confidence and reassurance, backed by FIH certification of the company
- Proven multi-project successes, tried & tested
- In-house design, civil engineering and synthetic turf surfacing expertise
- Robust quality management systems
- Known to provide comprehensive surface maintenance advice to customers

Don't leave things to chance – employ the best. *FIH Certified Field Builders #hockey_quality_assured*

DR. SANJEEV KUMAR
DIRECTOR

For more information:
Web: fihi.com/hockeyturf
Email: certified@fihi.com



Appoint a specialist contractor to build your hockey facility

This will be the biggest investment you ever make in hockey. Ensure you always appoint a specialist contractor to build your hockey facilities.

FIH Preferred Suppliers (when acting as main contractor) & **Certified Field Builders** have a proven ability to build top quality hockey facilities.





*FIH Tier 1 events –
International competitions*



*International / national
competitions*



Club & community



Education & community



Field tests and FIH certification ensures:

- Proof of required sports performance
- Proof of required player performance / welfare
- Acceptable finished construction standards
- Assurance installed hockey turf is the approved product
- Peace of mind – third party verification the field is as you specified
- A benchmark against which any changes in performance and quality can be compared.



Sinking funds

The term 'sinking fund' refers to the financial savings that the venue has set aside over a number of years to maintain its facilities to a high standard. In particular, the hockey turf carpet (and floodlights) only have a limited shelf-life before the facility operator needs to think about resurfacing and/ or replacing them, and this will cost a significant sum of money.



	Budget costs*
Lift existing carpet and dispose	\$25,000
Shockpad remediation	\$25,000
Supply and install new hockey turf surface	\$310,000
Total replacement cost based on 2018 costs	\$360,000
Life expectancy	10 years
Interest rate	1.5%
Annual contribution	\$33,365
Weekly contribution	\$645

* For illustration purposes only

1. Appoint a specialist project manager
2. Survey your site to ensure you have as much information as possible available pre-design
3. Ensure you specify you want an FIH Approved Product (to the appropriate category)
4. Only seek bids from FIH Preferred Suppliers and Certified Field Builders
5. Carryout key stage inspections throughout construction
6. Have the field tested prior to handover, to ensure it has been built in accordance with your requirements and FIH Standards
7. Maintain the field in accordance with the manufacturer's instructions



Play & enjoy your hockey!

Questions?

facilities@fih.ch