

## FIH World Ranking - Frequently Asked Questions

Subject	Comment	FIH response
Overall	Will this ranking system encourage playing more meaningful international matches?	This is the whole reason for introducing the new match based system. To encourage more matches and a more dynamic world ranking table. We will have to continually assess whether this is achieved, but it is certainly the intention.
Overall	What is the plan to publish rankings?	The rankings will be calculated live as each international match finishes, but we will publish the rankings, with comment on nations who have moved, on a monthly basis
Starting point	The implementation date (January 1, 2020) and the retention of the points from the old system means teams who have accumulated points over the last 4 years will not have these reduced over time. How is this being managed?	The influence of the starting ranking points will reduce over time as teams settle to their current ranking position. If a team is currently ranked "too high" then they will lose points as they play matches and settle at their current performance level. This "degrading" over time will be quicker than the current system due to the number of matches played. This has been shown to be the case in the model that we ran in the background during 2019
External validation	As this system has been developed in house with no external party review, what reassurance can the FIH give of the accuracy of this new system?	This system has had more review from within the hockey community than any previous system and has been both modelled for every match since Rio Olympics AND has been run in parallel for all of 2019 to assess its accuracy. The increased cost of external review is unnecessary, as the main unknown is the potential behavioural change of coaches setting performance programmes, so consulting the high performance hockey community, which has been done, is the best way to achieve this rather than asking an auditor or external consultant. The new system has been run in parallel with the current system throughout 2019 and has been shown to better reflect current performance levels.
Dates for pools	What dates rankings will be used to determine pools and continental quota calculations for major competitions such as the Olympic Games and World Cups?	We have specified the dates that rankings are used to calculate pools and continental quotas for qualification purposes for the next editions of the FIH World Cup. As we get into the next cycle, dates for qualification for the 2024 Olympic Games, and subsequent World Cups will be published.
Pro League impact	Have you looked at the differences created between those in Pro League and out of Pro League?	The system does not bias those in or out of Pro League as it takes into account matches played and the relative strength of the opposition. This removes the perception that teams can buy their way into more points by simply satisfying commercial criteria to get into the Pro League.
Non-playing of matches	How do we protect the system from those that might fall if they play tests - ie deliberately not play in order to maintain current ranking/points?	The system accounts for this by being a net zero system where points are exchanged. Therefore whilst playing matches risks losing points, it also provides the opportunity to gain them. This is true for an individual team as well as for teams ranked around that team, so not playing could result in a drop, or a rise, in World Ranking position, dependant on other results. Coaches should still want to play matches in order for their teams to improve, so whilst we will monitor this behaviour, we expect the number of official matches to stay the same or increase. The key point is that all official test matches will count for the world ranking, rather than just a small percentage as previously did.
Friendlies	How does the new system manage "friendlies" and allow coaches to experiment and teams to play practice matches that do not count towards world ranking points?	The situation is the same as it has been previously. Friendlies, or practice matches, can still be played and they will not award international caps, will not be recorded on TMS, nor will they have world ranking points attached. Each match will either have all of these elements or none, it will not be possible to have a match, award caps, but not record on TMS or award ranking points. Currently, friendlies are not recorded on TMS and that will not change
Introduction timing	Why has the date of January 1, 2020 been chosen to introduce the new system?	We tested the system for all of 2019, running it in parallel, and modelled back to 2016, so are confident we have a system that will reflect current performance. If we do not launch the system on January 1st, then there will be no chances for Nations outside of the Pro League or Olympic Games, to gain world ranking points until the Continental Federation Championships in 2021. The introduction in January will not affect the Olympic Games pools, as these have already been set, and it allows all nations to play for ranking points from the start of the year.
Modelling	Have we tested all matches since Rio including 2019?	Yes, we have a model that we ran from the end of the Rio Olympic Games until 1/1/19, and then reset the model, and ran it based on the current system's points as of 1/1/19
Modelling	What assumptions have been made in simulating the effects of the new system?	No assumptions. We have not modelled potential behavioural change and believe this can only be observed once the model is introduced. We will therefore be conducting continual reviews of the system to ensure any loop holes are closed and the system is fair and reflects current form.
Smaller NAs	How will the new system help smaller NAs as it is unlikely that the matches played by these NAs will increase significantly so as to affect their ranking?	The previous system recognised only a small proportion of the matches that were played, so for smaller NAs they only had a small number of chances to gain world ranking points over a 4 year period. Even if no more matches are played, the matches that are played have more meaning as they will have ranking points at stake. This should raise the importance and therefore competitiveness of these matches and allows NAs to demonstrate movement within the ranking system. We will not know whether this results in an overall increase in official matches until we roll out the system, but it is expected that all NAs will want to have the chance to gain points where possible and therefore will arrange more official matches.
Ranking points for other activities	Has thought been given to awarding ranking points for development programs, such as FIH Coaching, Umpiring, and Technical courses? There can be a limit a year to the number of points that a NA can gain for such programs, but it could help smaller NAs who do not play so many international matches.	The new system will only recognise official matches in the rankings. Whilst we obviously want to encourage more hockey involvement by NAs, there are many ways to do this rather than the world ranking which is specifically designed to rank teams due to their performance on the pitch in international competition
New teams	Given that points are exchanged between teams, how do "new teams" or "always losing teams" figure in the ranking? Are teams allowed to have negative points?	When a new team is introduced into the rankings table, they will be awarded 100 ranking points and every other nation will have 100 points added to their total. As the algorithm uses a Weighting factor (W) that is calculated by the difference in points between teams, this has no effect on the overall positions or maths. The same goes for a team that loses points and drops to zero. They are given 100 points, as is everyone else in the ranking table. No team will move into negative points.
Combining tournament and match based systems	Has consideration been given to developing a system that combines both match based ranking points and the existing tournament based system?	This has been looked into in detail, and is the reason for tournament matches being more important than individual test matches. The new system will be solely based on match results between teams regardless of whether those matches take place in tournaments or not. The greater importance of tournaments is taken into account by the number of points that will be exchanged through the Importance factor (I) in the algorithm. In this way, a team that performs above their world ranking will gain points across a tournament, whereas a team who underperforms against their ranking will lose points. This is a completely different system to the previous tournament based system, so the exchanging of points needs to be considered completely differently to the previous system where teams were awarded points dependant on their finishing position in a small number of FIH tournaments.
Importance factors (I)	How have the Importance (I) factors of the events been decided?	The Importance factor is based on the position of an event in the qualification pathway for World Cups and Olympic Games, and on the importance of the event in promoting and developing hockey around the world. The Olympic Games and FIH World Cups are the most important in the hockey calendar and therefore have an Importance factor of 10. The Olympic Games and World Cup qualifiers, as well as the Continental Federation Championships, are the final qualification routes to the World Cup or OG so they have an importance factor of 6. All other tournaments and test matches are then given an Importance factor relative to their position in the international hockey calendar.
Importance factors (I)	Should the Importance factor reflect the strength of each tournament, therefore the higher the ranked teams in a competition are, the higher the factor should be?	The quality of opposition is taken into account through the Weighting (W) as it takes into account the relative strengths of the teams competing. Therefore to win for example the European Championship requires victories over more, higher ranked teams than to win the PAHF Championships, so a successful European team could win more points than a successful PAHF team. However, there is also an increased likelihood of a European team losing more points during a Championship. As always in a single tournament, there is a balance of points so those gained by one team will be lost by another. Therefore the total points change during a CF Championship, or any tournament, is a net total of zero. The modelling suggests that the relative World Ranking positions of the teams from different qualifiers is correctly ordered and there is no major advantage or disadvantage of one geographical region over another.

Importance factor (I)	While we agree that it will remove the subjectivity inherent in the current system as it pertains to CF weightings, there seems to be a fair element of inherent subjectivity as it pertains to the weightings proposed for event performance included in the algorithm (i.e. "I")	As there are a much smaller number of levels of events, and these are applied consistently across the world, we believe that most, if not all, of the subjectivity has been removed.
Importance factor (I)	Is there really a need of the "I" to be included in the algorithm?	"I" is included as we want to recognise the importance of tournaments over individual test matches. Without it, teams could choose not to play in tournaments and simply play individual test matches for the same number of points. We want to continue to see the World Cup and Olympic Games as the most important tournaments and the best window for us to showcase hockey around the world, so we want teams to prioritise these tournaments, hence having the highest Importance factor, "I".
Importance factor (I)	If Team "A" loses to Team "B" who has less ranking points in the Pool match, but defeats them in the Classification Match for a final tournament position, would the points lost be regained?	The exact number of points would be slightly different for each match as the points exchanged is calculated based on the ranking points at the start of each match, so after the first match, the points would be exchanged, then going into the classification match, the starting points would be different. If this scenario happened though, the number of points exchanged would be very similar. This would reflect the ranking points value of the match and not just the position in the tournament.
Weighting factor (W)	What happens if the Weighting factor is zero due to the difference in ranking points between the two competing teams?	This is only the case if a higher ranked team beats a lower ranked team and the ranking points difference between the 2 teams is greater than 1000 before the start of the match. In this case, as the higher ranked team is expected to win, they do not gain any ranking points and the lower ranked team does not lose any. If the opposite happens, and the lower ranked team wins, they gain a large number of points and the higher ranked team can lose the same number. This is capped at a maximum weighting (W) of 2.
Potential manipulation	What are the processes in place to ensure the new system is not subject to manipulation?	We will be closely monitoring matches and behaviours. Proper and competitive hockey is one of the corner stones of our Code of Conduct, so any situations where foul play is suspected or reported will be closely looked into and dealt with accordingly.
GB formula	Could the Great Britain formula lead towards ranking engineering?	The Great Britain formula will be applied in the same way as currently, but for each match. Therefore the number of ranking points for Great Britain before a match that is used to calculate the weighting on a match (W), will be calculated by the number of players from each of England, Scotland and Wales, and applying the proportional ranking points from each home nation. Any points won or lost during a match will then be divided similarly. If 2 Great Britain teams play against each other (Wales vs Scotland for example), there will be a points exchange so no overall gain for Great Britain.
Hockey5s	How will Hockey5s matches be included, or not, in this World Ranking system?	The future vision is to have a separate Hockey5s world ranking table (as is currently the case with indoor). Until then, Hockey5s matches and tournaments will be included in the same table as 11s. Each nation will have to choose whether they are an 11s nation, or a Hockey5s one for the purposes of world ranking. If a team elects to be an 11s nation then Hockey5s matches will not count towards their world ranking. The aim is to launch a Hockey5s world ranking system separately in 2022 in the build up to the first Hockey5s World Cup in 2023, when Nations will then be able to participate in 11s, 5s and indoor world ranking tables separately.
International match volume	To say that it encourages playing international matches is dependent on what ranking points mean for NA's, particularly those not in the top 20 or 30 rank. Does it mean: More access to funding for participation in higher level events; Development programs; Playing at a higher level, etc? For example, any of the above may not encourage a small nation to participate internationally if their focus is on club and festival hockey	Agreed that the importance of world ranking to a nation will have an impact on how important these changes are. What it will do is give those nations who believe that world ranking is important (to unlock funding or for other reasons) the chance to move up the rankings more quickly as all of their matches count. The example is fair, but there is no negative impact of the new system either, so we shouldn't change a system that isn't relevant to a nation simply because it doesn't encourage them to play more international hockey.
Eliminate wealth bias	How does the system eliminate "bias (or advantage) based on wealth of NA or geographic proximity to other nations" since these will not impact one's ability in such an advantageous position to use these to participate just as much or more in international matches?	The main benefit is that all matches that are currently played will count towards world ranking. We hope that teams will want to play more matches, but even if they don't and they play the same number of matches, they will all count so there is more chance to gain ranking points. Crucially, playing more matches doesn't mean definitely gaining more ranking points as points can be lost as well as won when playing.
Exchange of points principle	We agree that winning teams should gain points for each match, but it is it too punitive for the team losing the match to have the equivalent number of points deducted, particularly when they are the lower ranked team?	The whole essence of the system is that there is an exchange of points. Lower ranked teams are encouraged to play against higher ranked teams as they have the chance to win many points and if they lose, they will not lose many points. There is a significant shift of mindset required, but as has been shown in other sports, this system of exchanging points creates a good chance for a dynamic ranking system.
1000 point difference cap	How has the "cap" on the difference of points between teams (W) of 1000 been chosen as the point at which winning has no impact on the allocation of points? Example: Under the proposed system, for all matches played by ARG Men in the recently concluded Pan Am Games they only accumulated points when they played in the final vs CAN having won all their matches.	The purpose of the cap is to ensure that teams with a large ranking gap are not discouraged from playing each other as the lower ranked team could be almost certain to lose points if the cap was not in place. We have modelled different levels of cap, and 1000 is the fairest number that gives the best reflection of current performance in the ranking table. By having a cap, it encourages the matches to take place but doesn't penalise the lower ranked team if they lose. The system is designed so that teams are ranked according to their current performance, so if 2 teams play and the higher ranked team wins then there is only a small, or no, change to their ranking. They retain their position. In the example of Argentina, they gained a small number of points by winning a tournament they were expected to win based on the relative rankings. They therefore maintained their world ranking. If they had not won, then it would have negatively impacted their world ranking as they would have lost points (having lost to teams ranked below them).
Continental rankings	The introduction of a match based system in its current form removes the Continental Federation ranking currently used as the base points to which FIH event points are added for a final World Ranking. As a result, if a simple CF ranking is pulled from the match based system there may be anomalies that arise since a NA's ranking is impacted by matches against teams outside of its continent. Therefore, should this "simple" ranking be used to determine pools for CF events as it could pose difficult questions for the CF from member NA's who view results between CF teams as more reflective of the rank in their region. Could a separate ranking for each continent be produced for their use by their CF in Pool allocations for their regional events as need be?	The FIH position is that it would be simpler to have a single World Ranking that is then used for all tournaments and pool seedings, rather than separate CF rankings. If this encourages teams to organise more intercontinental matches, that would be seen as a positive. If this results in a team improving and winning ranking points that gives them a higher seeding in Continental Championships, then if this is wrong, it will adjust during the CF Championship based on results and points exchanged. We may only see the true impact of this when the system is introduced, and will monitor this carefully. We are in close discussion with each Continental Federation about how this system will be implemented.
Impact on small NAs	Does the new system help smaller NAs as it is unlikely that the matches played by these NAs will increase significantly so as to affect their ranking?	We hope that all NAs will want to play more matches as it will give them the chance to earn more ranking points. However, even if the number of matches does not change at all, the chances to gain ranking points still increases significantly as the matches that are currently played with no ranking points available, will all have points to be won.
Gap between top and bottom	My biggest concern is the gap between the top and the bottom getting bigger and not smaller, particularly where costs are a major factor. How does this system protect against this?	This is a very valid concern, but the current tournament based system does not help or address this concern at all. In the new match based system there is more opportunity to gain points and move up the ranking table by playing teams within a continent and keeping travel costs to a minimum. All matches currently played will contribute towards world ranking, so even if no additional matches are played, the new system will better reflect current performance and provide more opportunities than the old.