

Two-tier EQC Spot Distribution Explanation

A couple months ago now, we presented the community with a proposal for a new system for the European Quidditch Cup, growing the number of teams participating in the event, while splitting it into two different parts with different focus points. Through a unanimous vote of Quidditch Europe's member NGBs, it has recently been officially decided that starting next season with EQC2019, this proposal will go into effect.

In this post, on the cusp of EQC2018, we're proud to present you all with the algorithms which will be used to decide on spot distribution for the two divisions of EQC2019, and hopefully all future iterations of the tournament. The algorithm has changed slightly from our last post, based on the feedback we received during the open feedback period.

Quidditch Europe - Two-Tier EQC Spot Distribution News

- Quidditch Europe has officially approved the change to a two-tier EQC, meaning EQC2019 will be played through two divisions: D1 and D2.
 - EQC2019 D2 will be a trial event, with 16 teams. If successful, EQC2020 and further will have a full 32-team D2.
- The spot distribution algorithm has been finalised
 - D1 spots will be distributed based only on the EQC rankings of the last two years, with the most recent year counting more heavily.
 - Relegation system: NGBs get points for D1 rankings 1-28, as well as the top 5 D2 rankings. Exact performance points can be found in the linked document.
 - D2 spots will be distributed based on relative size of the NGB, subtracting any teams they already have in D1.
 - All NGBs (except Emerging Areas) will get at least one spot for D1 or D2.
 - There will be an overall cap, meaning D1 and D2 combined of 12 teams per NGB (representing 18,75% of EQC).

Please refer to the full post for further details!

Continue on the next page for more information.

The basics

Division 1 will be focused on the highest levels of competitive play, with NGBs securing spots through their performance (meaning ranking) at previous EQC events. Not all NGBs would be able to secure spots for this division, but it would guarantee the highest level of competitive play.

Based on feedback received from the community, national team performance (at EG/WC) will not be taken into account for EQC spot distribution, and instead we'll be looking at the last two years of EQC results only.

Division 2 will instead be focused on giving all NGBs a chance to be represented and participate in EQC, with a guaranteed spot for all NGBs not yet represented through Division 1 (including spots for emerging areas), and the remaining spots being divided based on an NGBs relative size.

Based on feedback received about the potential for one or two large and strong NGBs to slowly take over EQC in a significant way, NGBs will be capped at a total of 12 spots over the combined Division 1 and Division 2, to a total of 18,75% of all attending teams. There will be no other specific cap on the total number of spots an NGB can receive for a specific division.

More detailed

Division 1: For spot distribution for EQC D1, we'll be looking at the rankings of the previous two EQCs. Finishing at EQC D1 at ranking 1-28 (so everything excluding the bottom 4), as well as the top 5 at EQC D2, carries with it a certain amount of performance points, which will be awarded to the NGB the team claiming that ranking belongs to. Performance points from the most recent EQC will count in full, performance points from the EQC before that will count at 1/3 their value. The amount of spots an NGB received for next EQC D1 will then depend on the total amount of performance points said NGB received, and no other factors are taken into account. (With the exception of the 12 total teams cap for NGBs.)

Performance point values for all EQC rankings can be found here:

<https://docs.google.com/spreadsheets/d/1qO4KqJmN6W7NfKsMjYbSb2pimS0mk6L3k2VPIQHrD80/edit#gid=1087298398>

Division 2: For spot distribution for EQC D2, we'll be looking at the relative size of NGBs. First, a maximum of three spots will be set aside for Emerging Areas. Then, each NGB will be given a starting value of the number of member teams the NGB has, divided by the total amount of teams over all NGBs, multiplied by the total amount of non-Emerging Area spots available in EQC D1 + D2 (in the case of 3 EA spots, $64-3=61$). This gives a total value for the amount of spots an NGB would be entitled to based on their relative size only. Then, we subtract any teams an NGB might already have in D1, which gives a value for the spots an NGB is entitled to receive for D2 specifically.

If there's any NGBs who at this point are still at 0 spots, they will be given 1 spot. (This ensures all European NGBs who aren't emerging areas are represented at EQC.)

Rounding details:

Because performance points (D1) and size values (D2) will be rounded to give the amount of spots an NGB receives - we can't send partial teams, after all - the total amount of teams for a division might not be 32. Depending on whether the total is higher or lower than 32, certain NGBs will lose or gain a spot, depending on who has the lower or higher value. This is the same system that has been in place for rounding issues with EQC in previous years.

For example, NGBa has a value of 3.45, NGBb has a value of 2.20, and NGBc has a value of 4.35, and the total amount of teams after rounding gives 30 teams. With two spots still to divide, NGBa is the closest to another spot, so they'll receive a fourth spot. Afterwards, NGBc becomes the closest to another spot, so they'll receive their fifth spot.

The other way around, let's say NGBa has a value of 3.90, NGBb has a value of 2.56, and NGBc has a value of 2.78. If rounding gives a total of 33 teams, one NGB needs to lose a spot. NGBb has the lowest decimal number, so they'll lose one spot to give them a total of two spots.

Further reading

For those interested in seeing the full pseudo code for the algorithms, they can be found here: https://docs.google.com/document/d/14jaDk9Ps-Z4TBIXp1EHUpmFw_V18Ccs-0L4skvINbyl/edit?usp=sharing

An example of the algorithms in action, with data from the previous two EQCs and NGB size data from last season, can be found here:

<https://docs.google.com/spreadsheets/d/1qO4KqJmN6W7NfKsMjYbSb2pimS0mk6L3k2VPIQHRD80/edit#gid=594784364>

(Column K, "ngb[3]", gives the amount of spots/teams in D1, while column R, "ngb[4]", gives the amount of spots/teams in D2.)

For those wanting to catch up on old posts, the original proposal can be found here:

<https://www.facebook.com/QEurope/photos/a.737873182972300.1073741829.678003228959296/1576837855742491/?type=3&theater>

The post about the feedback received in the wake of said post can be found here:

<https://www.facebook.com/QEurope/photos/a.737873182972300.1073741829.678003228959296/1708368469256095/?type=3&permPage=1>