**REPORT FROM THE BLUE SKIES WORKING GROUP – PHASE III**

## OVERVIEW

* 1. The purpose of this paper is to present to the General Assembly (GA) the background to the vote being taken on the recommendations of the Blue Skies Working Group (BSWG) in relation to changes to the World Championship format and structure, calendar and team allocation and qualification.
	2. The BSWG was formed in 2018 and was tasked with two goals:

1.2.1. Recommend a new lacrosse discipline that best positions the FIL (now World Lacrosse) to achieve worldwide growth and Olympic inclusion based on the following priorities: rule simplicity; degree of gender consistency; game duration; tournament duration; pace of play; team size; player & spectator appeal; linear & digital media appeal; competition equity; and sport integrity.

1.2.2. Recommend a new World Championship structure, schedule and format that best positions the FIL (now World Lacrosse) to maximize media, brand exposure and commercial success, expand international lacrosse participation, and provide a platform and qualification system that supports elite athlete development and competition for each FIL member.

* 1. The work of the BSWG was ultimately divided into three phases and the group’s composition was evolved at each phase to assure a diversity of engagement, perspective, and expertise.

## BACKGROUND

* 1. BSWG Phase I - Recommend to the World Lacrosse (WL) Board and membership new lacrosse disciplines that will drive global participation and position the sport for Olympic program inclusion.
		1. Outcome: Following eighteen months of working group meetings and rule trials throughout the world, rulebook drafts for small-sided men’s and women’s field disciplines were developed and circulated to the WL Membership in 2019. The WL Membership approved the addition of men’s and women’s small-sided lacrosse disciplines – later branded as WL Sixes – at the 2019 WL GA.
	2. BSWG Phase II - Recommend to the WL Board and Membership a new world championship structure, format, and calendar.
		1. Outcome: The composition of the BSWG was evolved, and a series of meetings was conducted from February to August 2020. The arrival of the global pandemic complicated the BSWG’s ability to fully address all outstanding issues within the timeframe established, but the following BSWG recommendations were approved at 2020 WL GA:
* Men’s Senior Field World Championship moved from 2022 to 2023
* Men’s Box World Championship moved from 2023 to 2024
* Women’s U19 World Championship moved from 2023 to 2024
* Continental Qualifying Events must be completed at least 12 months – and up to 24 months prior – prior to the relevant World Championship
* U19 field events for both men and women changed to U20
* Future U20 World Championships will have no restriction on the number of teams
* World Lacrosse Sixes World Championships for men and women will have no restriction to the number of teams
* A series of 24 updates to the Event Hosting and Competition Manual
* Lacrosse Sixes execution strategy
* Final drafts of World Lacrosse Sixes rules
	+ 1. The following BSWG recommendation was presented but not approved

 at the 2020 WL GA:

* Senior Championships (men’s and women’s, field, and box) reduced from 30 to 20 teams from 2025 onwards
	1. BSWG Phase III – Conclude the work of the BSWG by issuing strategic recommendations to the WL Board and Membership on all outstanding topics from Phase II.

2.3.1. The BSWG further evolved its composition and reconvened in early 2021 to complete its terms of reference in preparation for issuing final strategic recommendations to the membership at the 2021 WL GA. Geographic diversity was a priority and the Committee make-up reflected that in addition to the skills and experience that each individual brought.

* + 1. .The BSWG adopted the following goals:
* Create the best possible experience for participating athletes
* Strengthen continental championships, and brand as world championship qualifiers
* Maximize revenue and marketing exposure from senior field and box championships

2.3.3. The following principles guided BSWG deliberations:

* Senior field and box championships should attract/include the best teams in the world
* Limited cross-CF competition complicates the determination of the best teams in the world
* Members may need to prioritize the disciplines in which they invest/compete
* The anticipation of more restrictive player eligibility criteria may impact the ability of some members to field teams in certain disciplines.

2.3.4.The BSWG conducted seven, 90-minute Zoom meetings between March 24 and May 24, 2021 focused on finalizing recommendations in the following areas:

* Event Calendar: World Championships, CF championships/qualifiers, timing between events, multi-sport international events, etc.
* Structure of Senior Field & Box World Championships: size and qualification, etc.
* Format of Senior Field & Box World Championships: Blue Division consideration, draw process, etc.
* Additional Events: Consideration of “Division II” championship, women’s box championship, etc.

2.3.5.The BSWG presented its draft recommendations to the board at its regularly scheduled meeting on July 6.

2.3.6.The BSWG conducted six member webinars on July 15 (2), August 5 (2) and August 9 (2) to review draft recommendations, respond to questions and seek input.

2.3.7. Recordings of each webinar, along with the corresponding slide decks, were circulated to the Membership.

## LEGISLATION CHANGES

## 3.1 If the recommendations are accepted, Section 11 of the WL Bylaws pertaining to International Competition would be updated to provide additional clarity.

## VOTE AT THE GA

## 4.1 There will be three (3) motions at the GA as follows:

4.1.1.*“*to accept the BSWG strategic recommendations pertaining to the World Championship format and structure (2/3 majority)”

4.1.2. “to accept the BSWG strategic recommendations pertaining to the World Championship calendar (2/3 majority)”

4.1.3.“to accept the BSWG strategic recommendations pertaining to the World Championship Team allocation and qualification (2/3 majority)”

**BSWG PHASE III RECOMMENDATIONS**

August 10, 2021

**Context**

* The BSWG is recommending strategic direction for World Lacrosse in the areas assigned. If the strategic direction recommended is supported by the membership, the next step requires World Lacrosse to refine and clarify the executional details to the satisfaction of the membership. None of these strategic recommendations, if supported, could be executed until that final step occurs.

**RECOMMENDATION I: STRUCTURE**

* Two-tiered, 40-team Men’s and 32-team Women’s Senior Field World Championships
	+ 16-team Division I Senior Men’s and Women’s Field World Championships attracting the best teams in the world.
	+ 24-team Division II Senior Men’s Field World Championships held within the same time window and, when possible, geographic location as the respective Division I championship.
		- More accessible and cost effective for participating members.
		- Greater flexibility for participating members to coordinate transportation, lodging and meals to fit participating member preferences and financial capabilities.
		- Provides a progression pathway for international officials’ development and enables WL to assign officials based on development level required
		- First staged in conjunction with the 2027 Division I Men’s Field World Championship
	+ 16-team Division II Senior Women’s Field World Championships held within the same time window and, when possible, geographic location as the respective Division I championship.
		- More accessible and cost effective for participating members.
		- Greater flexibility for participating members to coordinate transportation, lodging and meals to fit participating member preferences and financial capabilities.
		- Provides a progression pathway for international officials’ development and enables WL to assign officials based on development level required
		- First staged in conjunction with the 2026 Division I Women’s Field World Championship.
		- The number of teams will be increased to 24 when women’s field lacrosse sponsorship reaches 50 members.

**Note I:** Model is adjustable, expandable and increases the number of members participating in world championships.

**Note II:** World Lacrosse to provide equitable financial, operational, and marketing support to CF championships/qualifiers and world championships.

**Format**

* Division I Field Championships
	+ Four divisions of four teams each
	+ Snaked draw
	+ Elimination of a Blue Division
* Division II Field Championships
	+ Men – Four divisions of six teams each
	+ Women – Four divisions of four teams each (until the # of women’s national teams increases)
	+ Snaked draw
	+ Elimination of a Blue Division
* Box Championship(s)
	+ TBD

**RECOMMENDATION II: QUALIFICATION & ALLOCATION** (See Appendix I)

* CF championships serve as qualifiers for both Division I and II Senior Men’s and Women’s Field Championships.
	+ World Lacrosse will provide support to CF championships to assure consistency of event structure, branding, eligibility, etc.
* Each CF would have a minimum of one member qualify for Division I and II Men’s and Women’s Senior Field World Championships.
	+ Division I and II world championship hosts receive the only automatic qualifier for events; all other members must attend their respective CF championship to qualify.
* Teams are allocated, qualified, and seeded for each world championship based on a proposed numerical point system tied to the results of the previous world championship and CF championship/qualifier in each respective discipline.

**RECOMMENDATION III: CALENDAR PRIORITIES & PLACEMENT** (See Appendix II)

* Senior men’s and women’s events – field, box and 6v6 – are higher priority events with respect to calendar placement.
* Men’s and Women’s U20 Field World Championships are lower priority events with respect to calendar placement.
* The WL event calendar must be reset in consideration of the timing of the Olympic Games and World Games.
* The timing of world championships that serve as Olympic or World Games qualifiers is a priority consideration.
* A men’s and women’s world championship should be staged each year, when possible.
* World and CF championships in the same discipline must be appropriately spaced.
* Senior field and box world championships should be staged in 2-3-month windows throughout the year and timed to maximize participation by the best players in each discipline and avoid overlap of events, whenever possible.
* Inconsistent gaps between Men’s and Women’s U20 Field World Championships will be required in the short term.

**ADDITIONAL EVENTS**

* Recommend the addition of an inaugural women’s box lacrosse world championship held in conjunction with the 2024 men’s box world championship.
	+ No more than 8 teams at the inaugural event, based on the number of members that compete in the discipline.

**OPEN ITEMS**

* Recommend Competition Committee review of the current withdrawal penalty relative to the possibility of significant impact on the member’s qualification for a championship if moved to the bottom ranking.
* Recommend further review of the format and qualification for men’s and women’s box world championships based on the number of nations that compete in these disciplines.
* Recommend a reconsideration of the practicality of staging unified men’s & women’s Lacrosse Sixes events without limits on the number of members invited to participate.

**RELATED PROCEDURAL CONSIDERATIONS**

* A more restrictive player eligibility criteria is anticipated.
* An updated definition of “active” program in each discipline is anticipated.
* Updated WL membership criteria is anticipated.
* WL/CF collaboration & synchronization is required.
	+ Player Eligibility Criteria
	+ Event Calendar
	+ Sport Development Strategy
	+ Brand Alignment

**APPENDIX I – POINT-BASED WORLD CHAMPIONSHIP ALLOCATION FORMULA PROPOSAL**

**Introduction**

This point-based system or ‘weighted’ model considers the strength and geography of each member nation, as well as relative strengths amongst Continental Federations (CFs). Relative strengths amongst CFs are predominantly dependent on the previous World Championship (WC) rankings, and the relative strengths amongst member nations within CFs are dependent on the results of CF qualifiers (likely within 24 months of next championships).

This method ensures more recent comparison of member nations’ strengths, thereby making the championships as competitive as possible, compared to the previous model which only uses the results of the WC rankings from (at least) 4 years previously. It also considers new teams and teams who may not have participated in the immediately preceding WC for various reasons. Since the initial weighting is determined via results as a collective CF rather than individual nations, it also encourages active support within CFs. The added importance of, and incentive to play, in CF qualifiers will create more events for athletes to compete at the highest level, as well as increased marketing opportunities for our sport.

All member nations are involved in this model. Therefore, whilst ranked teams have a heavier ‘weight’ in the calculation of the allocations, those who are not ranked are not penalized by not participating in the previous championships, and new member nations are also considered to contribute towards their CF total weighting.

**Constraints and assumptions**

The model examples are based on a pool of 70 member nations. We also assume the 16-, 24-, 16-team format for the proposed Division I men’s and women’s, Division II men’s, and Division II women’s championships, respectively. Division I championships must have at least one member nation per CF allocated into the 16 teams, and the host nation(s) of both Division I and II championships receive(s) an automatic qualification. Note that in the case of Division I, this constraint is automatically satisfied via the constraint that one member nation from each CF is automatically allocated. Further methods to resolve any discrepancies arising from a non-ranked host nation that qualifies is discussed later in the document.

**Formula structure**

1. The allocation formula follows the following method for all divisions and any extensions:
2. Allocate points to each member nation (1 for unranked; 2 for bottom ranked, increasing by 1 per successive rank);
3. Sum total points for each CF;
4. Distribute into number of allocations across CFs;
5. Arrive at total allocations per CF; and
6. Allocate nations based on qualifying results.

The formula effectively performs the following:

***The previous world championship rankings determine the number of allocation spots awarded to each CF for a championship. The CF qualifier results then***

***eventually determine which specific member nations in each CF are awarded the allocation spots, as well as the final pre-tournament ranking.***

**Preliminary Calculation of Allocations per CF**

We provide a basic example of how the formula can be used. With the current rankings taken from the most recent men’s world championships, we first consider the men’s Division I allocations. With the constraint of at least one allocation spot per CF, the point-based system, then allocated a further 12 spots to complete the 16 teams.

The point allocations can be determined by the following formula:

$$Points for member nation=\left\{\begin{matrix}n-r+2&if ranked,\\1&otherwise,\end{matrix}\right.$$

$n$ is the total number of ranked member nations (or alternatively, the number of bottom ranked), and $r$ is the rank of the member nation in consideration.

Then, the number of allocation spots per CF can be calculated by using the following:

$$Total allocation per CF≈no. of allocation spots×\frac{total number of points for CF}{total number of points across all member nations}.$$

Using brute force and calculating step-by-step, we can deconstruct the above calculation using the table below:

| **Men’s Division I Allocations** |
| --- |
|  | AAL | APLU | ELF | PALA |
| Total points for ranked teams (1127 points) | 8 | 198 | 656 | 265 |
| Remaining points for (24) unranked teams | 3 | 6 | 6 | 9 |
| Total points for each region | 11 | 204 | 662 | 274 |
| Fraction of total (1151 points) | 0.0096 | 0.1772 | 0.5752 | 0.2381 |
| Relative distribution into 12 allocations | 0.11 | 2.13 | 6.90 | 2.86 |
| Rounding to whole number | 0 | 2 | 7 | 3 |
| Total allocations (one compulsory per region) | 1 | 3 | 8 | 4 |

Similarly, for the 25 women’s ranked member nations, we can use the same formula as displayed in the equations above. Then, we find the following:

| **Women’s Division I Allocations** |
| --- |
|  | AAL | APLU | ELF | PALA |
| Total points for ranked teams (350 points) | 0 | 86 | 188 | 76 |
| Remaining points for (45) unranked teams | 4 | 8 | 19 | 14 |
| Total points for each region | 4 | 94 | 207 | 90 |
| Fraction of total (395 points) | 0.0101 | 0.2380 | 0.5241 | 0.2329 |
| Relative distribution into 12 alloc. | 0.12 | 2.86 | 6.29 | 2.73 |
| Rounding to whole number | 0 | 3 | 6 | 3 |
| Total allocations (one compulsory per region) | 1 | 4 | 7 | 4 |

**Example of full qualification seedings**

Now that we have calculated the number of allocation spots per CF from the previous WC rankings, we can begin to use the CF qualifier results to fill the relevant spots for the Division I championships. For each CF, where $x$ is the total number of allocated spots for a CF, the top $x$-ranked teams of the relevant CF qualifier will proceed into the Division I championship.

Note that in the case where the host nation is not one of the qualified member nations, the associated CF would qualify one less member nation than allocated, and the host nation would qualify into the remaining spot as the lowest rank.

**Women’s Allocations**

Note that many qualifiers have not taken place. However, since the women have had more recent ‘qualifiers’ via CF championships recently, we begin with the women’s allocations. These are expected to be more realistic than the men’s allocations at this current point in time. We would like to stress that the presented allocations and rankings are speculative and are based on results we have currently, and in no way reflect the rankings and real portrayal of the formula results in the future.

With the calculations in the previous section, and based on the most recent CF results, the following 16 teams would qualify for the women’s championships:

|  |  |  |  |
| --- | --- | --- | --- |
| **AAL [1]** | **APLU [4]** | **ELF [7]** | **PALA [4]** |
| Uganda | Australia | England | USA |
|  | Japan | Israel | Canada |
|  | New Zealand | Wales | Haudenosaunee |
|  | Korea | Czech Republic | Puerto Rico |
|  |  | Scotland |  |
|  |  | Germany |  |
|  |  | Ireland |  |

Note that the host nation in this case (USA) already qualifies via their ranking, so the rankings from CFs stand when filling the allocation spots for PALA.

These 16 teams can be ranked via incorporating the CF rankings into previous World Championships rankings. Hence, we can consider the most recent strengths of each country within each CF as well as the strengths of the CFs themselves. We do this by allocating each previous WC rank the corresponding CF, then placing the nations within each CF by their place into the allocated CF spots.

For example, the 5th rank in the WC belongs to the second ranked ELF nation during that championship (England took the first ranked ELF position by placing third overall, and Scotland finished 5th overall and second within ELF). However, after the Euro qualifiers, Israel is in fact the most recent 2nd placed ELF nation. Hence, in the newest overall rankings, they would replace Scotland as the second ranked within the CF.

Then we have that the 16 nations that qualify may be ranked in this way:

|  |  |
| --- | --- |
| **Allocated Rankings (Women’s)** | **Previous WC Rankings** |
| 1 United States | 1 United States |
| 2 Canada | 2 Canada |
| 3 England | 3 England |
| 4 Australia | 4 Australia |
| 5 Israel | 5 Scotland |
| 6 Wales | 6 Israel |
| 7 Czech Republic | 7 Wales |
| 8 New Zealand | 8 New Zealand |
| 9 Japan | 9 Japan |
| 10 Scotland | 10 Czech Republic |
| 11 Germany | 11 Italy |
| 12 Haudenosaunee | 12 Haudenosaunee |
| 13 Ireland | 13 Ireland |
| 14 Republic of Korea | 14 Germany |
| 15 Puerto Rico | 15 Republic of Korea |
| 16 Uganda | 16 Netherlands |

Note that, for example, Australia, Japan, and New Zealand did not take part in the APLU qualifiers as the previous method allowed for their automatic qualification at this time. However, they have been incorporated here as retaining their previous ranks. We would expect in the future that these teams would take part in the CF qualifiers, and the same procedure would follow.

Puerto Rico and Uganda are automatically bottom ranked, by virtue of the initial stages of the formula, since there is no previous 4th ranked PALA or AAL spots in the previous WC rankings. The 15th/16th differentiation ranking has come from favoring Puerto Rico into the higher rank, since they participated in a qualifier, and Uganda did not (qualified by automatic allocation for each CF, even though a qualifier did not take place). Note that in similar cases, if no such distinct ranking procedure can take place for previously unranked teams, we can extend the formula to include more rankings to deduce which CF placed next in the rankings (i.e., if extending to the 20th place ranking and PALA appeared before AAL, then Puerto Rico would be awarded the higher seed, and vice versa).

**Men’s Allocations**

Please note that men’s qualifiers have not yet taken place, so the resulting allocations simply serve as an example. We will for now use the most recent European results, and current APLU/PALA rankings.

With the calculations in the previous section, the following 16 teams would qualify for the men’s championships:

|  |  |  |  |
| --- | --- | --- | --- |
| **AAL [1]** | **APLU [3]** | **ELF [8]** | **PALA [4]** |
| Uganda | Australia | England | USA |
|  | Japan | Israel | Canada |
|  | Philippines | Finland | Iroquois |
|  |  | Wales | Puerto Rico |
|  |  | Germany |  |
|  |  | Switzerland |  |
|  |  | Netherlands |  |
|  |  | Scotland |  |

Using a similar system would result in the following ranked allocations:

|  |  |
| --- | --- |
| **Allocated Rankings (Men’s)** | **Previous WC Rankings** |
| 1 United States | 1 United States |
| 2 Canada | 2 Canada |
| 3 Iroquois Nationals | 3 Iroquois Nationals |
| 4 Australia | 4 Australia |
| 5 England | 5 England |
| 6 Japan | 6 Japan |
| 7 Israel | 7 Israel |
| 8 Puerto Rico | 8 Puerto Rico |
| 9 Finland | 9 Germany |
| 10 Philippines | 10 Philippines |
| 11 Wales | 11 Scotland |
| 12 Germany | 12 Ireland |
| 13 Switzerland | 13 Jamaica |
| 14 Netherlands | 14 Wales |
| 15 Scotland | 15 Finland |
| 16 Uganda | 16 Italy |

For the men’s allocation, we have 4 PALA nations instead of the previous 5. The next ranked ELF nation therefore took the place of the original 5th ranked PALA spot. No AAL nation was placed in the top 16 previously, and therefore automatically takes the 16th rank.

**Extension of Model to Incorporate Division II Championships**

We will assume that 24 teams will compete in the Men’s Division II Championship, and 16 teams will compete for the Women’s Division II Championship. The weighting system works similarly to how the top 16 allocations were processed, but without the constraint of one reserved allocation per CF. For this set, we remove the pre-allocated 16 teams from the point system and recalculate using only the remaining countries and their respective previous ranks. We still allocate a point to all non-ranked/new nations. This ensures that the strength comparisons of the top 16 do not affect the Divisions II allocations.

Note that we still have the constraint that host nations of the Division II championships automatically qualify, providing more incentive for a member nation to host. This qualification spot is addressed after the total allocation calculations following this method:

* If the Division II host nation participates in the Division I championships (ranked 16th or above), then we do not require any further calculations after the Division II allocations.
* If the Division II host nation qualifies by their seeding from CF qualifiers already, and the CF has more than one allocation, then the same procedure would follow as the Division I allocations (i.e., If they qualify via merit already, nothing more needs to be calculated; if they do not qualify via their seeding, then one less from that CF would qualify, so that the host nation would replace the bottom seeded in the CF allocations).
* If the Division II host nation belongs to a member nation with no allocation spots, the remaining CF nations that has an allocation number with the lowest fractional part (what we referred to previously as ’biased rounding’) would lose an allocation spot in favor of the host nation’s CF (with the host nation taking that spot).

The method with which we may address multiple/joint hosts are discussed at the end of the appendix.

Then for the men’s we have:

| **Men’s Allocations for Division II Championships (17th-40th)** |
| --- |
|  | AAL | APLU | ELF | PALA |
| Total points for ranked teams (495 points) | 8 | 74 | 361 | 52 |
| Remaining points for (24) unranked teams | 3 | 6 | 6 | 9 |
| Total points for each region (519 points) | 11 | 80 | 367 | 61 |
| Relative distribution into 24 alloc. | 0.51 | 3.70 | 16.97 | 2.82 |
| Rounding to whole number | 1 | 4 | 17 | 3 |
| Total allocations with biased rounding | 0 | 4 | 17 | 3 |

Here we have the issue in which rounding to the nearest number results in 25 teams, rather than 24 (over-allocation). We resolve this by finding the CF with a total allocation number with the lowest fractional part (biased rounding). In this case, this would be AAL with a fractional part of 0.51 (the other CFs have fractional parts that are greater than 0.51). Hence, AAL would lose one spot.

For women’s we have:

| **Women’s Allocations for Division II Championships (17th-32nd)** |
| --- |
|  | AAL | APLU | ELF | PALA |
| Total points for ranked teams (54 points) | 0 | 14 | 30 | 10 |
| Remaining points for (45) unranked teams | 4 | 8 | 19 | 14 |
| Total points for each region (99 points) | 4 | 22 | 49 | 24 |
| Relative distribution into 16 alloc. | 0.65 | 3.56 | 7.92 | 3.88 |
| Rounding to whole number | 1 | 4 | 8 | 4 |
| Total allocations with biased rounding | 1 | 3 | 8 | 4 |

We have a similar issue with over-allocation. Using biased rounding, we have that APLU would drop a spot for the women’s allocations.

Note here how APLU have less allocations than PALA, even though APLU performed better than PALA in the sub-16th competitions. This shows that geography is still being considered as well as nations’ strengths when allocating.

**Example of Division II Allocations**

An example of men’s allocations and seedings can be estimated to be:

|  |  |
| --- | --- |
| **Allocated Rankings (Men’s)** | **Previous WC Rankings** |
| 17 Latvia | 17 Norway |
| 18 Czech Republic | 18 Latvia |
| 19 Ireland | 19 Greece |
| 20 Norway | 20 Switzerland |
| 21 New Zealand | 21 New Zealand |
| 22 Sweden | 22 Netherlands |
| 23 Poland | 23 Slovakia |
| 24 Belgium | 24 Austria |
| 25 Russia | 25 Sweden |
| 26 Hungary | 26 Czech Republic |
| 27 Hong Kong | 27 Hong Kong |
| 28 Spain | 28 Hungary |
| 29 Argentina | 29 Argentina |
| 30 Austria | 30 Belgium |
| 31 Denmark | 31 Spain |
| 32 Italy | 32 Poland |
| 33 Slovakia | 33 France |
| 34 France | 34 Denmark |
| 35 Republic of Korea | 35 Republic of Korea |
| 36 Slovenia | 36 Russia |
| 37 Bermuda | 37 Bermuda |
| 38 Mexico | 38 Mexico |
| 39 Chinese Taipei | 39 Peru |
| 40 ELF next ranked | 40 Uganda |

Women’s allocations and seedings can be estimated to be:

|  |  |
| --- | --- |
| **Allocated Rankings (Women’s)** | **Previous WC Rankings** |
| 17 Netherlands | 17 Latvia |
| 18 Hong Kong | 18 Hong Kong |
| 19 Latvia | 19 Switzerland |
| 20 Jamaica | 20 Mexico |
| 21 Norway | 21 Sweden |
| 22 China | 22 China |
| 23 Austria | 23 Spain |
| 24 Mexico | 24 Colombia |
| 25 Switzerland | 25 Belgium |
| 26 Italy |  |
| 27 Chinese Taipei |  |
| 28 Sweden |  |
| 29 Colombia |  |
| 30 Spain |  |
| 31 Argentina |  |
| 32 AAL 2nd |  |

**Men’s Summary:** full example of allocations

|  |  |
| --- | --- |
| **Allocated Rankings (Men’s)** | **Previous WC Rankings** |
| 1 United States | 1 United States |
| 2 Canada | 2 Canada |
| 3 Iroquois Nationals | 3 Iroquois Nationals |
| 4 Australia | 4 Australia |
| 5 England | 5 England |
| 6 Japan | 6 Japan |
| 7 Israel | 7 Israel |
| 8 Puerto Rico | 8 Puerto Rico |
| 9 Finland | 9 Germany |
| 10 Philippines | 10 Philippines |
| 11 Wales | 11 Scotland |
| 12 Germany | 12 Ireland |
| 13 Switzerland | 13 Jamaica |
| 14 Netherlands | 14 Wales |
| 15 Scotland | 15 Finland |
| 16 Uganda | 16 Italy |
| 17 Latvia | 17 Norway |
| 18 Czech Republic | 18 Latvia |
| 19 Ireland | 19 Greece |
| 20 Norway | 20 Switzerland |
| 21 New Zealand | 21 New Zealand |
| 22 Sweden | 22 Netherlands |
| 23 Poland | 23 Slovakia |
| 24 Belgium | 24 Austria |
| 25 Russia | 25 Sweden |
| 26 Hungary | 26 Czech Republic |
| 27 Hong Kong | 27 Hong Kong |
| 28 Spain | 28 Hungary |
| 29 Argentina | 29 Argentina |
| 30 Austria | 30 Belgium |
| 31 Denmark | 31 Spain |
| 32 Italy | 32 Poland |
| 33 Slovakia | 33 France |
| 34 France | 34 Denmark |
| 35 Republic of Korea | 35 Republic of Korea |
| 36 Slovenia | 36 Russia |
| 37 Bermuda | 37 Bermuda |
| 38 Mexico | 38 Mexico |
| 39 Chinese Taipei | 39 Peru |
| 40 ELF next ranked | 40 Uganda |

**Women’s Summary:** full example of allocations

|  |  |
| --- | --- |
| **Allocated Rankings** | **Previous WC Rankings** |
| 1 United States | 1 United States |
| 2 Canada | 2 Canada |
| 3 England | 3 England |
| 4 Australia | 4 Australia |
| 5 Israel | 5 Scotland |
| 6 Wales | 6 Israel |
| 7 Czech Republic | 7 Wales |
| 8 New Zealand | 8 New Zealand |
| 9 Japan | 9 Japan |
| 10 Scotland | 10 Czech Republic |
| 11 Germany | 11 Italy |
| 12 Haudenosaunee | 12 Haudenosaunee |
| 13 Ireland | 13 Ireland |
| 14 Republic of Korea | 14 Germany |
| 15 Puerto Rico | 15 Republic of Korea |
| 16 Uganda | 16 Netherlands |
| 17 Netherlands | 17 Latvia |
| 18 Hong Kong | 18 Hong Kong |
| 19 Latvia | 19 Switzerland |
| 20 Jamaica | 20 Mexico |
| 21 Norway | 21 Sweden |
| 22 China | 22 China |
| 23 Austria | 23 Spain |
| 24 Mexico | 24 Colombia |
| 25 Switzerland | 25 Belgium |
| 26 Italy |  |
| 27 Chinese Taipei |  |
| 28 Sweden |  |
| 29 Colombia |  |
| 30 Spain |  |
| 31 Argentina |  |
| 32 AAL 2nd |  |

**Model Remarks and Observations**

* Considers geography, relative strengths of CFs, results from CF qualifiers. Hence, you are incorporating not just the previous WC rankings, but the most recent CF qualifier. This means that performing well at CF qualifiers become more of an incentive and therefore encourages consistent development of national programs. More recent results are incorporated, therefore providing a fairer and more competitive schedule.
* Also creates a CF ‘support system’. The better your CF does as a whole at a WC, the more slots you will get next time around.
* Model is sensitive to the point system. A single point distributed is equivalent to 0.01, 0.03, 0.05, and 0.16 weighting in the relative distribution for men’s, women’s, men’s div II, and women’s div II, respectively.
* The model can be easily extended and provides great flexibility without changing the model itself. Any number of rankings/member nations can be incorporated, as well as a further number of divisions.
* The model produces fairly similar results to geography-only-based allocations for now, but those who perform well at CFs are rewarded.
* This is all still dependent on previous rankings, but the incorporation of the CF qualifier does impact the allocation significantly.
* New nations are not penalized severely, as the CF qualifier gives them the chance to compete in the open championships.
* There is a further incentive to perform well at the Division II championships, as these points still count towards the open championships for the next set. This again would motivate the CF support system idea.
* The model provides the ability for any nation to be able to compete at all levels. There is no barrier between the Division I and II championships, since the seedings and allocation results are based on CF qualifiers and not on performance previous to that. Hence, participating in Division II championships one year does not directly hinder an opportunity to be able to compete in the Division I championships the next cycle, and vice versa (the current format would make this difficult). This may be a particular benefit for growing CFs and newly-developing member nations.

**30-team Allocation Example**

We can apply the same formula to the results of a 30-team ranked championships, similar to what is expected after the next men’s championship cycle. As a reminder, the formulae are as follows:

$$Points for member nation=\left\{\begin{matrix}n-r+2&if ranked,\\1&otherwise,\end{matrix}\right.$$

$n$ is the total number of ranked member nations (or alternatively, the number of bottom ranked), and $r$ is the rank of the member nation in consideration, and

$$Total allocation per CF≈no. of allocation spots×\frac{total number of points for CF}{total number of points across all member nations}.$$

To use the formula for a ranking of 30-teams, we would take $n=30$, and deduce the allocation spots. Having re-calculated the point distribution using the top 30 teams in the previous world championship rankings (for men only), we arrive at the following set of allocations.

| **Men’s Division I Allocations** |
| --- |
|  | AAL | APLU | ELF | PALA |
| Total points for ranked teams (495 points) | 0 | 92 | 267 | 136 |
| Remaining points for (40) unranked teams | 4 | 9 | 14 | 13 |
| Total points for each regions | 4 | 101 | 281 | 149 |
| Fraction of total (535 points) | 0.0075 | 0.1888 | 0.5252 | 0.2785 |
| Relative distribution into 12 alloc. | 0.09 | 2.27 | 6.30 | 3.34 |
| Rounding to whole number | 0 | 2 | 6 | 3 |
| Biased rounding for under-allocation | 0 | 2 | 6 | 4 |
| Total allocations (one compulsory per region) | 1 | 3 | 7 | 5 |

We see that in this case, we have under-allocation. Similarly, to previously, we use biased rounding to determine which CF rounds up the allocation number. Between the four CFs, PALA narrowly (by 0.04) has the highest fractional number, and therefore is rounded up. Note that a single point in the 30-team point-based system is equal to an approximately just over 0.02 weighting in the allocation, so a single point exchange between ELF/PALA could have made the difference in biased rounding (ELF would have narrowly exceed the PALA in the fractional number comparison).

Note that we have only considered those that participated in the previous championships (in this case, a total number of 30) to be ranked. Therefore, any other member nation that did not participate or are unranked (new member nations, for example), all are awarded the single point only. Since there are limited continental federation championships, this would be the optimum solution for the point-based system. However, we remind the reader that the formula can be extended to accommodate any number of $n$. Therefore, if rankings below the 30th place are required, we could use the same formula to determine the distribution of the entire pool of member nations.

In the future, we would expect the total number of ranked teams to be 40 and 32 for the men’s and women’s field disciplines, respectively, given the proposed format of 16-, 24-, 16-team format championships. The formula again remains the same and would be worked similar to the 30-team example in this section, and all previous sections.

**Multiple host nations**

We have previously discussed the procedure in different scenarios for the host nation. In the case where a joint-host championships may be held, the highest seed of the joint hosts would receive the automatic qualification in the respective division, regardless of the number of co-hosts. If the highest seed of the joint hosts have already qualified, the automatic qualification criteria is deemed to be satisfied, and will not be given to a lower seeded co-host.

**APPENDIX II – EVENT CALENDAR PROPOSAL**

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