



31 October, 2009 | Karsten Skjalm | IIHF General

Competition Committee submits proposal for new IIHF Championship format. Background and analysis

After lengthy internal negotiations, the IIHF has submitted a proposal for a new format for the future IIHF Championships. The most important element in the proposal which include a set of requirements and principles for the IIHF World Championship is that the current 16-12-12 system will be replaced with a 16-6-6- system.

THE PROPOSAL

At present 16 IIHF members participate in the annual IIHF senior men World Championship. Division I and Division II each includes 12 participating nations, divided into two groups at each tier. The fourth tier, division III, has a variable number of participants. Each year, two nations are relegated and promoted from each tier (see figure below)



According to the new proposal, 16 nations will still participate in the annual IIHF World Championships with two nations being relegated, but all divisions below the elite level will be reduced to six participants with only one nation being

promoted and relegated except from Division I where two nations will still earn promotion to the elite level each year. One effect of the new system is that the number of divisions will increase. In the future there will be at least five or six divisions below the elite level.

What is more: in the lower IIHF divisions, the World Championship will only be played every second year. The proposal does not specify where this cut will be made, but it will probably be from division III or IV and below. To make the system consistent, there one nation will only be relegated every second year from the division tier above.

If implemented today, the divisions at the men's senior level would look like this:



The principles of the new format will apply to all IIHF Championship events. In the IIHF Junior World Championships and Women Championships, the number of participants in the divisions below the elite level will also be cut to six.

The Competition Committee's proposal was submitted to the IIHF's Semi-Annual Congress in Tunis in September. This Congress in turn decided to allow each national member association two months to express their views and concerns. When the deadline expires on 15 November, the Competition Committee will resume its work and present a final proposal for the annual IIHF Congress in Cologne in May next year. If no decision is taken at this meeting, the IIHF will call for an extraordinary session on the issue to be held at the semi-annual congress in Slovenia in September 2010.

BACKGROUND

The process of finding a new format for the IIHF World Championships has gone on for several years. The

discussion started to pick up when **Horst Lichter** became the General Secretary of the IIHF in November 2006. Horst Lichter, a Sports Economist, came from a position as the Marketing Director of the German Football Association. Previously, he was the CEO of CWL Marketing AG, the predecessor of Infront, the commercial partner of IIHF. The IIHF has a tradition for being governed by 'old hands', by people who have been part of the system for years. Lichter's predecessor, the Swede Jan-Åke Ervindsson was the General Secretary, a very powerful position, of the IIHF for 20 years. When Ervindsson resigned, Rene Fasel, the president of the IIHF looked for an outsider in his quest for strengthening the commercial and financial side of the IIHF, and Horst Lichter was the obvious candidate given his history with CWL Marketing/Infront and his hands-on experience with marketing the World Cup in football that took place in Germany in 2006.

Horst Lichter's pet project quickly became the launch of a European Hockey Champions League, but he also got involved in the simmering discussion of reforming the format for the IIHF World Championship. Since the mid-80s, when Ervindsson became the General Secretary of the IIHF, the number of participating countries in the IIHF World Championships have doubled from 24 to 48. Several reforms have taken place since the early 90s. The first reform took place in 1992 when the World Championship (elite level) was increased from 8 to 12 participants. In 1998, the number of participants was further increased to 16. At the same time, the IIHF introduced a pool D (today's division III). In 2001, the IIHF introduced its present division system. The B-pool, now called division I, was expanded from 8 to 12 participating nations divided into two groups (group A and B) with six participants in each group. Division II (the former C-pool) was organized along the same principles while the D-pool was abolished. In 2003, however, a Division III was introduced.

During the 90s and 2000s, Fasel and Ervindsson worked to expand IIHF's global reach. The underlying philosophy of the reforms that took place in this period was that the more countries should have the opportunity to play at the highest level and that there should not be too sharp divisions among the IIHF members below the elite level. In short: the IIHF was one big family and more should be done to promote the game in the non-elite countries.

The new system, however, quickly led to at least two important problems:

The first problem was the vast increase in IIHF World Championship tournaments. In 2000, there were 13 World Championships (all pools and junior and women world championships included). By 2004, the number had increased to 22. As the IIHF basically does not earn any money on marketing the World Championships below the elite level and the organization reimburses part of the host nations' expenditures organizing the events, there were growing concerns among the elite and middle-rank nations about IIHF's increase in expenditures and the relative decrease in money granted to the host nations. The discontent culminated a couple of years ago when the IIHF spent CHF80 mio. to renovate its headquarters in Zürich.

The second problem concerned the competitive imbalance between and within the individual tiers of the IIHF division system. In the IIHF, there is a core of elite nations. This group has been stable for decades. Canada, USA, Sweden and Czechoslovakia have always been part of this exclusive club. In modern times (post WW-II), only two nations have broken into the elite, namely USSR/Russia and Finland. In the late 90s and the turn of the century, the elite increased from six to seven after Czechoslovakia was separated into two independent nations. Until the dissolution of the Soviet Union in 1991, it was extremely rare that non-elite nations created upsets in the World Championships by beating elite nations, and it never happened in the final rounds. Upsets have become more common since the early 90s, but since the Soviet Union broke instantly into the elite by beating Canada 7-2 and winning the world championship in 1954, no non-elite nations have ever beaten an elite nation in the final rounds or the playoffs. Today, would-be elite nations such as Switzerland and Germany are as far from elite as they were in the 80s and early 90s. For the elite nations, the World Championship only starts in earnest when the playoffs start in the last week of the World Championship, an event that last three weeks at the men's senior level.

As we move down the ranks, the difference in strength among IIHF nations does not decrease. It actually increases. Next to the elite nations, there is a group of middle-rank nations. Some of these nations are more or less stable participants in the World Championship with Switzerland, Germany, Latvia, Belarus and to some extent Denmark and Norway being the most stable, and France, Italy, Austria, Slovenia and Kazakstan being less stable. None of these nations are outright elevator teams (moving up and down between the elite and division I in a stable pattern), although Austria has shown some worrying tendencies in this direction in recent years. Since the division system was introduced in 2001, seven of the 16 teams (44%) that was promoted to the World Championship in the previous year, was promptly relegated. Between Division I and II, no less than 12 out of 16 teams (75%) was instantly relegated after earning promotion from Division II. Teams being promoted from Division III are also quickly relegated and just as frequently (75%). The competitive gap between Division I and II and division II and III is thus much more pronounced than it is between the World Championship and division I. What is more: the gap, we are witnessing between the elite nations and the middlerank nations in the World Championship is just as pronounced, if not more so, within each of the lower divisions.

With the change of guards from the family-oriented Jan-Åke Ervindsson to the more business-minded Horst Lichter and with a view to Rene Fasel's efforts to promote the IIHF senior World Championship in Canada, a group of elite nations, led by Sweden and Finland seized an opportunity to reduce the number of the participants in the World Championship. Discussions took place in the IIHF's Sports Committee (after 2008 redubbed to Competition Committee) which was headed by Kalervo Kummola, the president of the Finnish Ice Hockey Association.

At the semi-annual congress in September 2007, Kalervo Kummola informed that Sports Committee was working on a proposal that would reduce the number of participants in the elite World Championship from 16 to 14 divided into two groups of seven. Kalervo noted that 'nothing [had been] written in stone' and that the Sport Committee might be

looking at other proposals as well.

The Sports Committee's idea met fierce resistance from the middle-rank nations and IIHF's president, Rene Fasel didn't like it either as the World Championship, the IIHF's money-maker, could lose valuable marketing and tv rights revenue if major European hockey countries such as Germany and France failed to be among the 14. Germany, one of IIHF's most important markets, was relegated from the elite level in 2005 and had just made it back to the top tier when the Sports Committee aired its proposal.

In an effort to stop the proposal in its track, Fasel asked Infront, IIHF's marketing partner, to assess the economic consequences of the proposal. Infront's study was submitted to IIHF's Semi-Annual congress in Montreux, Switzerland, in September 2008. The study showed that it would have serious economic consequences if the IHWC was cut from 16 to 14. Though the gate receipts would largely be unaffected, the marketing and tv rights income would seriously take a hit. The drop in this income, which is exclusively allotted to the IIHF, implied that the IIHF would have lesser financial means to sponsor other IIHF championship events.

Infront's study effectively punctured the Sports Committee's proposal. Also, At the time when the IIHF gathered in Montreux, the Sports Committee was replaced by the new Competition Committee. This Committee was no longer headed by a Finn as Kummola moved to the IIHF Council, but by the Canadian Murray Castello, one of the old IIHF hands. And the Competition Committee was furthermore expanded from six to ten members giving the middle-rank members a decisive say.

The Competition Committee thus dropped any suggestions of cutting the number of participants in the World Championship and started to focus on the divisions below the elite level. During the Winter of 2009, the Committee contemplated with a radical idea of abandoning the division system at all age levels and genders in favour of a system similar to the Olympic qualification system. Throughout the season, there would be pre-pre, pre and final qualification tournaments based mainly on world ranking points and partly on geographical criteria.

This idea was eventually dropped as well and instead the Competition Committee worked out the proposal outlined above. As mentioned, the proposal addresses two key problems, namely 1) there's too many IIHF championship events and 2) the current division system suffers from competitive imbalances between and within the divisions.

WILL THE NEW SYSTEM BE MORE COMPETITIVE BALANCED?

Virtually all IIHF members agree that the IIHF World Championship events should be more exciting. Sports economics gives insights as to how this can be accomplished. Public interest in sports competition reflects, to a certain degree, the amount of uncertainty that characterises the outcome of games in a competition. If too many games are foregone conclusions, the public's and hence the media's interest in the competitions will decline. The result could be less attendance, media exposure, sponsor income and so on. According to sports economics, the competitive balance is thus a key to the growth and health of sports competitions such as the IIHF World Championships.

There are various ways of measuring competitive balance but all measures evolve around the proportion of points won by teams in a competition or league. One commonly used measure in the sports economics literature is the so-called '**concentration ratio**' (CR) which measures the proportion of a tournament's points won by the top n teams in a k team competition. CR thus measures the degree to which the top n teams dominate the sports event. The problem with this measure is that it is sensitive to the size of k (number of teams in the competition). To take account of this, we can standardize the concentration ratio by dividing it through by (n/k). If we further multiply with 100, we get a '**concentration index**' (CI). In a perfectly balanced competition, the CI is 100. Increasing levels of competitive imbalance will produce outcomes in excess of 100.

The Concentration Index (CI) is a summary measure that informs us how prone the top teams are to dominate a competition. The measure is directly relevant for the IIHF division system where the key objective of the teams is to reach promotion to a higher division tier.

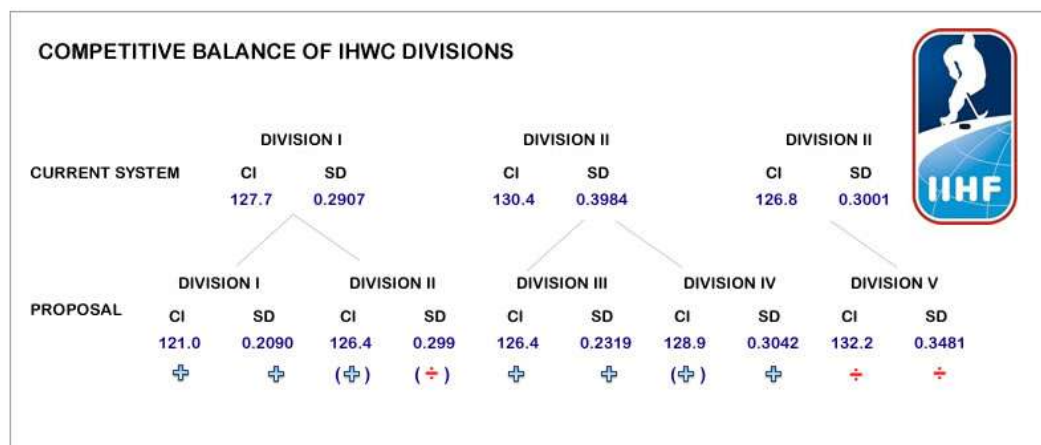
The problem with the measure is that it does not yield any information about the competitive balance of the other teams in the competition. To take account of this, we can calculate the **standard deviation** of the teams' win percentages within the particular IIHF divisions. Standard deviation is a statistics that measure the average deviation around a mean in a sample or population. If the sports competition such as a IIHF World Championship was perfectly competitive each team would end up with a win percentage of 50% and the standard deviation would be zero. Thus, the closer the standard deviation is to zero, the more competitive the tournament.

For reference, according to a IHN study which will be published shortly, the most competitive major hockey leagues in the world have a standard deviation in win percentage below 0.10; that is around 2/3 of the teams in the leagues have a win percentage between 40% and 60%. The least competitive major leagues (e.g. the Greek, Bulgarian and Turkish leagues) have a standard deviation between 0.30 and 0.35.

The following calculations are based on all games played between the IIHF nations within a particular IIHF division since 2001 when the division system was introduced, and we will compare the CI and standard deviation win percentages in the present division system with the system proposed by the Competition Committee. The hypothesis is that the Competition Committee proposal will improve the competitive balance of the divisions. If the hypothesis holds true, we should thus expect a decrease in both the CI and standard deviation in the new system compared with

the old. The analysis is agnostic, but the data material from recent years' IIHF competitions does provide insights since the relative strength of the IIHF nations only evolve slowly over time.

In an IIHF division with 6 teams there are 45 points up for grabs, and if one team wins the division with a perfect record it will with 5 games in a 3 points system reach 15 points. With one team being promoted we will set $n = 1$ and $k=6$. In the current division system there are 12 teams in division I and II with two teams being promoted from two separate groups with each two teams. Since the composition of groups changes from year to year, we will lump together all the teams that play in division I and II respectively and set $n=2$ and $k=12$ in each division.



The calculations show that the concentration index (CI) in each of the three divisions is relatively equal, namely between 125 and 130. The CI is slightly higher in division II than in division I and III. What this figures mean is that the team that reach promotion typically collects between 25% and 30% of the total points in a division group. This corresponds to between $0.25 \cdot 45 = 11.25$ and $.30 \cdot 45 = 13.5$ points out of a maximum of 15 points. In other words, in the current system, the team that reach promotion typically wins four or five games out of five. The system could hardly be more competitive imbalanced. What is more, as noted above, the team that get promoted to a higher tier is typically relegated to the lower tier in the following year.

The calculations of the standard deviations shows that the IIHF divisions are as competitive imbalanced as the least competitive balanced major leagues in Europe. Division II is in particular imbalanced with a standard deviation of .3984, or around 0.40. To make sense of this measure, we note again that there are typically 6 teams in each division group, and that one standard deviation corresponds to around 2/3 of the sample, i.e. $6 \cdot 2/3 = 4$ teams. In division II the mean win percentage is 52.3 This means that win percentage of the 4 middle teams in a IIHF divisions (i.e. excluding the top team that earns promotion and the team that is relegated) vary between 52.3 ± 40 , that is between 12.3 and 92.3%. The data suggest that standings typically follow a 15-12-9-6-3-0 points pattern. The outcome of the games is thus very much a foregone conclusions long before the competition commence, in particular in IIHF's division II.

One should not expect miracles with a new system, but the proposal made by the Competition Committee suggests that the new system will lead to more competitively balanced divisions. The biggest improvements in terms of competitive balance will be made in the new division I and division III and to some extent division IV (for teams included in these divisions if the system was implemented today, see map above). The proposal will not have any effects on the new division II, and in the new division V, the competitive balance will worsen. Caution should however be made with division V which mainly consists of newcomers to the IIHF competition or nations with little IIHF experience. The outcomes of the games in this division are prone to be volatile.

DRAWBACKS OF THE NEW SYSTEM

While the Competition Committee's proposal clearly has its pro's in terms of improving the competitive balance of the IIHF World Championships as well as cutting the costs of organizing these events, it also has its drawbacks. It is readily clear that the lesser IIHF nations will lose if the proposal is implemented.

It is wellknown that hockey is a very fragile sport in the IIHF nations that roam in the lowest IIHF divisions. In these countries, the number of registered players is typically only a few hundred who plays for less than a handful of hockey clubs. For young kids who pick up the sport, the prospect of making it to the national team is always a distinct possibility. And playing for the national team provides an opportunity to travel around the world and participate in IIHF World Championships. When it comes to attracting new players to the sport, this is something that should not be underestimated. For many small IIHF members, the national development and health of the state of the sport very much hinges on being able to participate in the annual IIHF World Championships and with regular intervals hosting the event as this gives an opportunity to marketing the sport. One thing that is particularly worrying about the Competition Committee's proposal is the the IIHF World Championship will cease be an annual event in the lowest divisions.

Another drawback of the proposal is that division splits will make the journey from the lowest divisions to the upper tiers much longer (especially if the World Championship is only played every second year in the low IIHF divisions).

The counterargument is that no nation makes such fast progress that it will move from the low divisions to the top divisions within a few years (unless we're talking about newly established independent countries, such as Slovakia, Belarus, Latvia etc. where hockey is already an established sport). The current 16-12-12 system does however provide the weak IIHF nations with a better opportunity to test the progress they have made as they more quickly can earn promotion to a division with much stronger teams than in the new system proposed by the Competition Committee.

For these reasons, one should expect the small IIHF nations (in particular those who play in the lower end of division II) to express their discontent with the proposal. It remains to be seen to what extent their concerns will be heard. If the proposal is implemented, one can hope that the IIHF will step up its support to these nations by other means.

RELATED TOPICS FOR DISCUSSION

In addition to the future format of the IIHF World Championships, there is also an ongoing discussion on related issues.

One of these issues concerns the hosting of the World Championship. European elite nations such as Sweden, Finland, Russia and Czech Republic have grown accustomed to hosting the IHWC around every seven years. They have a strong material interest in preserving this regularity as it is vital for the financial wellbeing of their national hockey associations. In recent years, a number of rising middlerank nations such as Latvia, Belarus and Hungary have made bids to host the IHWC and this threatens the financial position of the hockey associations in the European elite nations. The elite nations are currently working to 'institutionalize' the historical pattern into a right to host the IHWC every 7-10 years.

Another issue for discussion is the many national games and international tournaments being played in Europe in the international breaks in September to February. Sweden and Finland have grown weary with the Euro Hockey Tour which has been played for more than 10 years, and middlerank countries such as Germany, Switzerland, Belarus, Slovakia, Denmark and Norway would like to play against the top nations more often. This is not currently possible as the Euro Hockey Tour (Sweden, Finland, Czech Republic and Russia) is being played in every international break. Though the international games and tournaments serve as preparation for the IHWC, the big annual event, it is a common view that there are too many 'meaningless' games and too-much-of-the-same, meaning that nations always play against the same set of nations, outside the IHWC. One of the current IIHF discussions is thus how to inject new life to these games and tournaments, and more concretely, there is discussion about resurrecting the European Championship which was played each year in the early years of the IIHF. A related but more far-fetched proposal is whether non-IHWC games should somehow count in the IIHF World Ranking system.