



Rankings consultation guidance document

Executive Summary

The production of a national ranking list is an important part of the national governing body's work. Many players are motivated by the prospect of improving their position in the rankings. Players, and those who support their development, judge their progress (at least in part) by their latest ranking and how much it has improved.

At the same time, the national rankings provide the performance team at Table Tennis England with useful information on the progress of talented youngsters and those aspiring to join the elite group of top players. And they are used to support the process of squad selections, invitations to compete in events and for tournament seedings.

As a result, there is a risk that the rankings are expected to be all things to all people. Inevitably, however, no ranking system is perfect, and trade-offs have to be made between the competing requirements of the various interested parties.

This consultation document is aimed at the c. 3000 players who appear on the national ranking lists, those involved in player development (such as parents and coaches) and others, such as tournament organisers, who have an interest in the performance of the national ranking system.

Over the last year, we have been thinking about whether developments to our ranking system are required, and what these should be. A catalyst for this has been the new ITTF ranking system introduced in 2018. This at least raises the question of whether there would be value in adopting a domestic system that integrates more easily with that used for international competition.

We are also very aware of various issues raised by our members over the present system. Some of these relate to administrative issues, of which there have been many in recent months as we have migrated from one computer system to another. While we acknowledge those difficulties, and the inconvenience that they can cause, the focus of this consultation is on the more strategic question of what ranking system suits our collective needs best.

After introducing the topic and presenting some background information, this consultation is structured in three main parts:

- Part A focuses on objectives and principles for our ranking system
- Part B discusses the pros and cons of the main alternatives
- Part C examines a number of lower level, but important, considerations for how any system should operate

While we hope to receive as much feedback as possible, readers can choose which parts to respond to.

Following this consultation, we will aim to make decisions on the future direction of the ranking system this summer, with a view to implementing any changes from the 2021/22 season. At this stage, we have an open mind on how our ranking system should develop. Changes could range from tweaks to the existing system to the introduction of a completely new one.

Many thanks in advance for your participation and support.

Contents

	<u>Page</u>
Executive summary	1
Introduction	4
Background	5
Part A – what we want from a ranking system	9
Part B – Pros and cons of alternatives	14
Part C – Additional considerations	19
Next steps	27
Appendices	28

1. Introduction

1.1 Purpose of the consultation

This consultation document discusses options for how the national ranking system could be developed and seeks feedback on the issues raised.

Over the last year, our Ranking Policy Group² has been thinking about what developments, if any, are required to our ranking system. We asked the Members' Advisory Group (MAG) for its views on ranking system principles and on the performance of the current system, and we have taken this feedback into account in this document. Our Board has been kept abreast of developments throughout the process and would now like to ask members for their views.

Two factors in particular have been driving our thinking. First, in 2018, the ITTF introduced a new ranking system (see section 2.3 for more details about this). This at least raises the question of whether there would be value in adopting a domestic system that integrates more easily with that used for international competition.

Second, we are conscious of issues that are raised periodically by our members over how the system operates, and have been thinking about how they could be addressed. Here we are not referring to administrative difficulties (which were a particular issue in the second half of 2019 as we migrated between computer systems) although a relatively complex system such as ours is more likely to lead to administrative problems.

We are hoping to gather as much feedback as possible in response to this consultation, from players, those who support player development (parents and coaches, for example) and others (such as tournament organisers) with an interest in the performance of the national ranking system. This feedback will guide us as we make decisions over how to develop the ranking system. We are particularly interested to understand:

- members' priorities
- views on which type of ranking system can best meet our needs (and why), and
- views on how to approach a range of questions related to the operation of the system

We hope that readers of this document will enjoy looking beyond any day-to-day concerns that they may have with the current ranking system to consider how a future ranking system could best balance the sometimes conflicting objectives and principles that we set for it.

1.2 Outline of the consultation document

Section 2 provides the reader with background information. It contains:

² The Ranking Policy Group is a 'task and finish group' established by the Board

- an explanation of the main alternative types of ranking system, which are the subject of much of the consultation
- a brief outline of our current national ranking system and the ranking system used in international table tennis

The consultative aspect of the document is structured in three main parts:

- Part A (in section 3) focuses on objectives and principles for our ranking system
- Part B (in section 4) discusses the pros and cons of the main alternatives
- Part C (in section 5) examines a number of considerations for how any system should operate, some quite strategic in nature and others more operational

Finally, section 6 outlines our intended next steps.

1.3 Consultation process

Accompanying this full consultation document is an online questionnaire. We recommend that you read this document first, and refer to it while you complete the questionnaire.

We will have a 'drop-in' at the following Table Tennis England competitions and events between late-January and mid-March 2020:

- Women's British League on Saturday 25th January, Aldersley
- Senior British League (C6) on Saturday 15th February, Bromley
- Veterans' British League on Saturday 22nd February, Derby
- Senior National Championships between 28th February & 1st March, Nottingham
- Junior British League on Sunday 8th March, Derby

Interested parties are invited to talk to us at these events to ask questions and discuss the issues raised in this document³.

In addition, we are planning to present and discuss the issues with MAG and with National Council.

The closing date for responses is 20th March 2020. We will publish information on the consultation and our conclusions in the summer once the Board has made decisions on the way forward.

2. Background

2.1 Relative and absolute systems

There are many ranking systems in operation in different sports but they generally fall into one of two categories: relative systems and absolute systems. This section explains how

³ We will also be pleased to talk about our consultation on the strategy for British League, which is running concurrently with this consultation

these two types of system work and provides some examples of where they are applied. In section 4, we assess the pros and cons of these two main alternatives.

Relative systems

Relative systems will be familiar to many of our members because our current national ranking system uses this approach. Ranking points⁴ are awarded or deducted based on the relative levels of the players, as measured by the difference between their total ranking points going into the event⁵.

The number of points awarded (or deducted) depends on how expected or unexpected the win (or loss) is. The theory is that a player whose ranking is too low should gain points until their ranking reflects their true standard. Similarly, a player whose ranking is too high will lose points until their ranking more accurately reflects their playing strength.

In many systems, the standard of the event is also used in the calculation of how many points are awarded or deducted - the better the standard, the greater the number of points. This is generally referred to as the event weighting.

Our current ranking system is a relative system - an adapted version of the 'Elo' system, which was originally invented for chess⁶. See section 2.2 below for a more detailed explanation of our current system.

A focus on the Elo system

The Elo rating system is named after Arpad Elo, a physics professor, who invented it for use in chess in the middle of the last century. In the original and purest form of Elo system, the number of points gained by the winner is equal to the number of points taken from the loser (this is known as a 'zero sum game').

The number of points that change hands is based on a statistical model of the likelihood of the result; the more unlikely the result, the more points that change hands. (In chess, points also change hands for a draw).

This is arguably the most accurate type of rating system for reflecting playing strength as it rewards winning rather than participating. However, Professor Elo himself recognised the approximate nature of the process he had invented for rating players, comparing it to "*the measurement of the position of a cork bobbing up and down on the surface of agitated water with a yard stick tied to a rope and which is swaying in the wind*".

The Elo system has been adopted for, and adapted by, many other games and sports.

⁴ Strictly speaking, these are rating points, and the ranking list shows the players in order of their rating points. We are using the phrase "ranking points" loosely.

⁵ Depending on event format, sometimes points are adjusted after each match rather than after each event

⁶ https://en.wikipedia.org/wiki/Elo_rating_system

Absolute systems

Absolute systems reward points based on how far the player gets in a tournament rather than who the player beats or loses to. In some absolute systems, points are also awarded for the number of individual wins that a player has within team competitions.

Typically, a player's total number of ranking points is the sum of their best results over a rolling time-period. In this document, we refer to this as the 'rolling points retention period'.

Many international sports governing bodies use absolute ranking systems, including the Association of Tennis Professionals, the Official World Golf Rankings and, since the start of 2018, the International Table Tennis Federation (ITTF). See section 2.3 for an overview of the ITTF system.

2.2 Overview of our current national ranking system

Our current national ranking system was developed in 2014⁷ in conjunction with TT365 and is now supported by Sport:80. It is an adaptation of the Elo system. Some of its main features are:

- Results count towards the national rankings if they are from national events organised or sanctioned by Table Tennis England, international events in which players represent England, or VETTS events⁸
- There are separate lists according to gender and age-group
- The winner of a match receives more points than the loser loses (leading to 'inflation'), which creates a positive incentive for players to compete. Those who don't should gradually slip down the rankings
- More points are available the higher the rating of the event (known as 'weighting')
- Bonus points are awarded for high finishes in the higher rated events
- Every player has a 10% points reduction at the start of each season
- Players who are inactive for 12 months lose all of their points
- New players, or players returning after a lay-off, receive an initial number of points depending on how many players they beat in their first event, and the ratings of those players

A guide on our website contains explains our current ranking system in detail⁹. Appendices 1 and 2 of this document contain extracts from the guide, showing the event weightings and points tables for our current system as an illustration of how a relative system operates.

We comment on common issues and concerns with our current ranking system in section 5 of this document.

⁷ It was built on the principles of our previous system whilst addressing known limitations

⁸ VETTS stands for Veterans English Table Tennis Society

⁹ <https://tabletennisengland.co.uk/wp-content/uploads/2016/01/Ranking-Guide-Sept-2019-002.pdf>

2.3 The ITTF and other ranking systems

ITTF World Rankings

In 2018, the ITTF introduced an absolute system for the world table tennis rankings. Prior to this, a relative system was in place. The main features of the new system are as follows¹⁰:

- Results count towards world rankings from the Olympics, world title events, ITTF sanctioned events, ITTF recognised events and ITTF approved events
- Ranking points are awarded on the basis of the final positions in knockout singles events; wins in round-robin qualifications at certain events; and for individual wins in team matches
- Ranking points are awarded separately for each age-group and separate ranking lists are published for seniors, under 21s, juniors and cadets
- Ranking points are valid for 12 months except for certain events that are not held every year
- A player's best 8 results count for the senior ranking, best 6 for under 21 and best 5 results for junior and cadet rankings

Other European countries (and other sports) use a variety of ranking systems, some bespoke and some off-the-shelf. This demonstrates that there is no one-size-fits all solution, and that the appropriate ranking system for a specific country has to take account of the context in that country and, in particular, its competition structure.

¹⁰ See the following link for more detail: https://www.ittf.com/wp-content/uploads/2020/01/World-Ranking-regulation-2020_18012020.pdf

3. Part A - What we want from a ranking system

3.1 Introduction to Part A

In this part of the consultation, we set out a number of objectives and principles. The objectives define why we have a ranking system, while the principles define what we want from our ranking system. We seek feedback on their relative importance, and whether our lists are complete. We can use these objectives and principles to help us to choose the right type of ranking system and also to make more detailed choices over how the system operates in practice.

Later in the consultation document (in section 5) we will consider a number of other considerations, some more strategic, others practical. An example is whether to include local league results within the national ranking system. A more practical example is how to cater for new players or players returning after a long lay-off. These all have a bearing on how the ranking system would operate. We explain our preliminary thinking on these points and seek feedback.

3.2 Objectives

We have identified the following five objectives, which will help inform our choice of ranking system. These objectives together define why we have a ranking system. The first two are members' objectives, while the following three are objectives of the national governing body, associated with performance and competitions.

- Motivate table tennis players to play and improve

Improving their position in the national rankings is a strong motivator for many players, and any ranking system should preserve this motivational effect.

- Enable players, parents, coaches and others to have an understanding of relative player position and progress

Any ranking system should allow not only players, but those supporting their development in the game, with a means of assessing how they are progressing. This is achieved in part by monitoring their ranking over time, and also by seeing their ranking relative to other players that they know.

- Reflect performance within age-groups for Talent ID and Tracking

The ranking system should provide Table Tennis England with useful information on how young players are developing and performing within their individual age-groups. This is one of a number of sources of information that are used for the selection of performance squads.

- Identify invitations/seedings for national events

Entry into certain events (such as the National Championships) is based on invitations. We would want to be able to use any national ranking system for the purpose of invitations, but we recognise that no system will be perfect, hence the use of other methods to supplement ranking-based invitations, such as wildcards and qualification tournaments. A more common use of the national rankings is to inform tournament seedings; we would expect this to continue with any future system.

- Inform national selections

Any ranking system should provide Table Tennis England with information to support national selections. As with talent-tracking, we expect this to be one of a number of sources of information used for this purpose.

Questions for consultation – please see page 2 of the online survey

Q1. Do you agree that the list of objectives is complete? (Y/N)

Q2. If you answered “No” to Q1, what objective(s) do you think are missing?

Q3. Do you have any other comments on the objectives?

3.3 Principles

We have defined a number of principles that, ideally, we would like our ranking system to conform to. The principles represent what we want from our ranking system. In practice, some of these principles are easier to meet than others. Since it isn't possible to meet all of the principles perfectly, and there are various trade-offs between them, we are interested in your views on which are most important and which are of lesser concern.

- Be transparent and easily understood

With a transparent, easily understood system it would be clear to players how they have gained or lost points and why they have gone up or down in the rankings.

- Be seen to be reasonably accurate

Any ranking system must retain the trust of the players that appear on it. To do this, the players must consider the system to be reasonably accurate, whilst recognising that all systems will have limitations. By "accurate", we mean that the ranking list is reflective of the respective levels of the players. A specific issue here is how to ensure that the results in the distant past do not over-inflate a player's ranking such that it fails to provide an accurate reflection of the player's current level.

- Fairly reflect recent results

Players must also consider that movements up and down the ranking list fairly reflect recent results.

- Not disincentivise participation in competition

As far as possible, we want to avoid the situation where a player decides not to play in an event or match because of a concern about the impact on his/her ranking. We are aware that this situation has arisen in the past where players are just inside a tournament invitation cut-off.

- Enable effective transition between age-groups

When players move from one age-group to another, it can take a while for their ranking in the new age-group to reach a reasonable position. Ideally, the ranking system would allow this transition to happen quickly and accurately.

- Not be overly labour-intensive

The administrative effort associated with running the national ranking system is a function of a number of related factors, for example: the amount of information that has to be entered; the IT system that supports it; the ease with which results can be entered as the event takes place.

- Work in harmony with domestic competition formats

The competition structure in England is very varied, with a mixture of individual and team events, a variety of tournament structures and wide range of levels catered for. The ranking system must be able to work within the competition structure.

- Reflect the performance of our top players on the international stage

If our ranking system only took account of domestic results, the top players – who play internationally almost all of the time - would not be accurately ranked. The ranking system therefore needs to take account of their international performances. As we note below, the present method of doing this creates a significant administrative burden.

A focus on trade-offs

It isn't possible to perfectly conform to all of these principles. There are conflicts between them so trade-offs need to be made. Here we illustrate some of the trade-offs:

- Keeping it simple (and therefore transparent and easy to understand) can often be at the expense of other principles. Put another way, the more we try to achieve with our ranking system, the more complex and less transparent it is likely to be. For example, the introduction of additional rules designed to position a new player in the ranking list could enhance the accuracy of the system, but this would be at the expense of simplicity and transparency.
- Similarly, the introduction of features that support other objectives can make the system more labour-intensive. For example, the present system involves a highly labour-intensive process in order to determine how many points should be awarded to, or taken from, English players based on their results in international events. This requires the manual entry of their results and for their international opponents to be given dummy rankings.
- One way of not disincentivising participation in competition is to make the potential reward for winning greater than the potential downside for losing. This will tend to work against accuracy and fairness as those who play most will tend to accumulate more ranking points. Our present system is already weighted in this way.

Questions for consultation – please see page 2 of the online survey

Q4. Please rate the principles from very important to not at all important

- Be transparent and easily understood
- Be seen to be reasonably accurate
- Fairly reflect recent results
- Not disincentivise participation in competition
- Enable effective transition between age-groups
- Not be overly labour-intensive

- Work in harmony with domestic competition formats
- Reflect top players' international performance

Q5. Do you agree that we have identified the most important principles? (Y/N)

Q6. If you answered "No" to Q5, what important principle(s) do you think are missing?

Q7. Do you have any other comments on the principles?

4. Part B - Pros and cons of alternatives

4.1 Introduction to Part B

In this part of the consultation, we look at the two main alternative ranking systems that we outlined in section 2: relative and absolute systems. To recap: relative systems award or deduct points based on who the player beats or loses to; absolute systems award points based on where the player gets to in a tournament (or how many individual wins they have in a team event).

Each of the two types of system has pros and cons, which we analyse below. Our consultation questions seek your feedback on our assessment of the pros and cons and on which of the two systems can best meet our objectives and principles.

4.2 Pros and cons of relative and absolute systems

Transparency and simplicity

With a relative system, the number of points gained or lost depends on who the player beats and/or loses to along the way, so the implication for ranking points of reaching a certain stage of the tournament isn't possible to predict. Furthermore, the calculation of points movements once the matches have been played is itself more complicated.

Absolute systems tend to be simpler, more predictable and therefore easier to understand than relative systems. With an absolute system, a player knows in advance how many points he/she would gain for reaching a particular stage of the tournament. For example, Liam Pitchford knows that if he reaches the semi-final of a Platinum World Tour event he will gain 1465 world ranking points.

Accuracy and fairness

Many believe that a key advantage of relative systems is that they can more fairly reflect results than absolute systems. This is because they award or deduct points based on who the player has beaten or lost to. To extend the earlier example, Liam Pitchford's 1465 points for reaching the semi-final of a Platinum World Tour event (under the absolute ITTF system) would be earned regardless of whether he has beaten Ma Long and Fan Zhendong or two relatively lowly-ranked qualifiers. Some people consider this to be an unfair aspect of absolute systems, believing that a win against a top-ranked player is 'worth' more than a win against a lower-ranked player.

A counter-argument is that absolute systems provide a more straightforward mechanism for the system to reflect recent results. The ITTF system is based (primarily¹¹) on a rolling 12-month period, and hence the rankings reflect relatively recent form. A point to consider is whether such an approach is suitable for a domestic ranking system, where not all players would have the opportunity to play a sufficient number of events each year in order for

¹¹ Results from some biennial events are retained for two years

their standard of play to be reflected in their points total¹². Our analysis of recent activity levels, summarised in appendix 5, shows that over half of our players only played in one or two events between August and December this season. (This is true in each age-group and in total).

Relative systems tend to retain points gained in the past. If a player's standard has dropped, their ranking should gradually reflect this as they suffer losses, but some argue that relative systems can unfairly support the ranking of a player who plays infrequently and therefore only suffers losses occasionally. Our current system seeks to mitigate this effect by reducing everyone's points by 10% at the start of the season.

Not disincentivise participation in competition

Many players want to take part in competitive table tennis regardless of the potential impact on ranking points. For others, the potential to gain points motivates them to play, while in some cases the fear of losing points can be a barrier to competition. As we noted above, this can be a particular issue where a loss of points could result in failure to qualify for an invitations-based event. This is a downside of a relative system in which points are subtracted for losses. A 'wins-only' relative system, with no points deducted for losses, does not disincentivise competition. However, some argue that not penalising losses compromises accuracy and fairness.

Absolute systems reward progress in events but don't take points away except when results fall out of the rolling points retention period. This type of system should therefore not create a disincentive to compete. However, it is possible for absolute systems to reduce the incentive to compete since only a certain number of results count towards a player's ranking points. This can create the situation in which a player knows that even if he/she wins a particular tournament it would not help their overall points position.

Enable effective transition between age-groups

We do not consider that either system necessarily performs particularly well or particularly badly against this objective. It is therefore unlikely to be a significant factor in the choice of the most appropriate type of system. We return to the question of how best to achieve this objective in our discussion of strategic considerations in section 5 of the consultation document.

Not be overly labour-intensive

With a relative system, every individual result has to be entered. An additional complexity is that for relative systems to work properly, the results should be computed in chronological order. If some results arrive late, a recalculation is required of all points gained and lost from the point at which the missing matches were played. While this is computerised it can lead to an additional administrative burden as players query why their points totals have changed when they haven't played in a recent event. To give a feel for the scale of this

¹² This is more likely to be a concern for players who compete in more than one age-group, where these are not integrated within a single ranking list

activity, over 34,000 match results (equating to 68,000 player results) were entered into our ranking system in the first five months of this season.

As noted above, absolute systems tend to be simpler than relative systems, and as a result they are generally less labour-intensive to administer. In theory, with an absolute system, only the final position of a player in a tournament needs to be entered for the ranking points to be calculated – results and scores from individual matches would not be required. The equivalent number of player results from the first five months of this season would be around 10,000. In practice, the question of whether it would be acceptable not to retain individual results, as a permanent record of the event, would have to be considered.

Work in harmony with domestic competition formats

An advantage of relative systems is that the event in which a particular match is played is only relevant for determining the weighting applied to the ranking points (i.e. bigger weightings for higher level tournaments). The same might appear to be true of absolute systems but in fact other issues have to be considered. In particular:

- In team events, a points structure would have to be defined to fairly reward wins gained in different divisions and it may also be necessary to consider reflecting team playing orders. In many such events, the team number 1 plays the opposing numbers 1 and 2; 2 plays 1 and 3; and 3 plays 2 and 3. For example, would points gained for a win depend on which position the player played and/or the position of the opponent? This is a more significant issue for our ranking system since players in England tend to play a greater proportion of their competitive table tennis in team-based events than international players do within the ITTF system. 60% of matches played in our events in the first 5 months of this season were played in team events.
- More generally, an advantage of our present competition and ranking arrangements is that tournament organisers have flexibility to adapt tournament structures, as rankings are primarily determined by head-to-head results irrespective of format. We have witnessed the creation of a number of innovative formats in recent years. If we did introduce an absolute ranking system, we would have to consider how ranking points are allocated whilst minimising any loss of flexibility to change or develop tournament structures.

Reflect the performance of our top players on the international stage

This can be achieved with either type of ranking system, however it would be more straightforward with an absolute system since it could be designed to integrate with the ITTF points system. In other words, ITTF points could also count towards the domestic ranking system.

As we note above, the current approach is very labour-intensive, as we seek to translate our international players' results into a reasonable number of points for inclusion on the domestic system. This issue is discussed further in section 5 of the consultation document.

Summary of pros and cons of alternative ranking systems

Type	Overview	Pros	Cons
<i>Relative (ELO-style)</i>	Points gained/ lost in each match relative to existing points of individual and opponent (broadly as per current domestic system)	<ul style="list-style-type: none"> • More fairly rewards results as points depend on the level of the opposition • Ability to accumulate more points normally provides an incentive to compete..... • Lack of rolling points retention period supports broad range of players, not all of whom can compete frequently • Compatible with any competition structure and format 	<ul style="list-style-type: none"> • More complex, less predictable and harder to understand •but threat of losing points can act as a disincentive to compete, particularly if invitations are based on rankings • Needs over-ride at top end of the rankings to reflect players' performances on the international stage • Greater administrative burden on volunteers and TTE staff, and more complex IT system • Greater complexity leads to a greater risk of data entry errors, delays or ranking re-runs
<i>Absolute (ITTF-style)</i>	Increasing points gained dependent on stage of competition reached (or number of wins in a team format) within a maximum number of events in a specified timeframe	<ul style="list-style-type: none"> • Simple, predictable and therefore easily understood • Will never disincentive competition... • Easier to reflect recent results by using a rolling points retention period • Low resource intensity • Straightforward to reflect performances on international stage by integrating ITTF and domestic points systems • Less complex to cater fairly for new players 	<ul style="list-style-type: none"> • Doesn't reward 'good wins' or penalize 'bad losses' • ...but can reduce the incentive to compete in specific circumstances • Not as easily compatible with current competition structures and the number of team events • Could lead to loss of flexibility for organisers to develop innovate competition structures

Questions for consultation – please see page 3 of the online survey

Q8. To what extent do you agree with our assessment of the pros and cons of the two types of system?

Q9. Please explain the reasons for your answer to Q8

Q10. Taking these pros and cons into account, which of the two types of ranking system do you think would best meet our needs?

Relative (ELO-style) system

Absolute (ITTF-style) system

Q11. Please explain the reasons for your answer to Q10

5. Part C – Additional considerations

In this part of the consultation, we examine a number of important considerations for how a future ranking system would operate, ranging from some that are strategic in nature to a number of more practical questions. Many of these issues reflect common areas of concern with our current system.

We are seeking feedback as part of this consultation on a number of these questions – see section 5.1. Others, while nonetheless important, will be for more detailed consideration at a later stage. For now, we acknowledge the issues and in some cases provide an indication of our initial thinking – see section 5.2.

5.1 Points for consultation

Which results should count towards national rankings?

We are assuming that, as a minimum, all national events organised or sanctioned by Table Tennis England should count towards the national rankings, as should international events in which England-eligible players compete for England or Great Britain. The question refers to a broader set of competitions, i.e. to closed events such as BUCS¹³ and PSUK¹⁴ championships, and to local league matches.

The general argument in favour of including results from a wide range of events is that all results contain information about players' standards, so it would be wrong to ignore any relevant information in the ranking calculations.

However, there are arguments for not including all events in the scope of the national rankings:

- Closed events, by definition, are only available to a subset of the playing community such as those who work for a particular organisation, or study at a higher education institution. It may be considered unfair to provide the opportunity to earn ranking points to a subset of players.¹⁵
- Where Table Tennis England does not organise or sanction the event, we cease to have control over the tournament rules and regulations, which raises the question of whether it would be appropriate to award national ranking points at such events.
- Many coaches see local league matches as an opportunity for junior players to gain experience and practice in a less pressurised environment than they encounter in national events. Consistent with the principle of not disincentivising competition, this is an argument for not including local leagues within the scope of the national

¹³ BUCS stands for British Universities & Colleges Sports

¹⁴ PSUK stands for Police Sport UK

¹⁵ The ITTF system manages a similar concern by placing a limit on the number of continental results that can count towards a player's world ranking

ranking system, particularly while this is a relative system.

- A more practical point in relation to local leagues is that not all leagues use the same league management software, which could be a barrier to the inclusion of their results within the national rankings. This would have an impact on the accuracy of the system.
- Furthermore, there would be inevitable resource and systems impacts of broadening the scope of the national rankings to include additional events and/or leagues. There were over 200,000 individual matches played within TT Leagues in the first half of this season (equating to 400,000 player results), which would amount to a c. 6-fold increase in the total number of matches within the scope of the national ranking system.

One specific example is VETTS events, whose results do count for ranking points at present. We see VETTS as something of a special case; since any veteran can join VETTS it is not strictly a closed event. In addition, we consider that VETTS events effectively fill a gap in the schedule of those organised or sanctioned by Table Tennis England, delivering a full schedule of national events for the veterans' age-groups. We therefore do consider it appropriate that VETTS events fall within the scope of the ranking system.

At this stage, we do not have a firm opinion on the appropriate scope for any future ranking system, and we will be interested to receive views on this.

Question for consultation – please see page 4 of the online survey

Q12. What do you believe is the appropriate scope for the national ranking system, and why?

To what extent should categories of player be integrated within the rankings?

At present, and with a couple of exceptions, our ranking system does not integrate genders or age-groups. We have separate lists for cadets (U15s), juniors (U18s), seniors and veterans (over 40s), and for each age category we have separate lists for boys and girls or men and women.

The exceptions are that we create ranking lists for younger age-groups (U10s to U13s) from the cadets' lists and we create under 21 lists from the senior rankings, in each case by simply filtering out the players who do not qualify for the list being generated¹⁶.

Furthermore, results only count for ranking purposes in the category of the event being played. For example, a match in a cadet girls' event would not count towards the players' junior girls' rankings, or vice-versa.

¹⁶ U13s and U21s lists are published monthly

Ideally, we would like to have a fully integrated list with every player on it. Separate lists could then be published by extracting the relevant cohort of players from the main list. Such a system would solve any problems associated with players moving between age categories. It would also allow ranking points to be awarded in mixed events in a meaningful way.

However, there are two principal barriers to having a fully integrated list:

- First, there has to be sufficient mixing of players for an integrated list to be robust. For example, if men only play men, and women only play women, it does not make sense for the lists to be integrated since the relative placing of men and women on the list would be arbitrary. This is largely the case under our current arrangements, particularly since local league results do not count for national rankings. A less extreme example might be juniors and seniors. Under an absolute system, if juniors tend to pick up most of their points in junior events, this would raise the question of whether an integrated ranking list could meaningfully represent the relative standards of junior and senior players.
- Second, in any relative system with in-built inflation (see section 2.2 above and appendix 4), those players who are eligible to play in multiple age-groups have an inherent advantage within an integrated list since they have the opportunity to win more points than those eligible to play in fewer age-categories. For example, a junior who plays in junior, under 21 and senior events is likely to accumulate more points than a senior player of an equivalent standard.

Question for consultation – please see page 4 of the online survey

Q13. To what extent do you believe that national ranking lists should be integrated, and why? Please say if your answer depends on whether we have an absolute or relative system.

Dealing with inactivity

Under our current system, players who are inactive for 6 months do not appear on the ranking list. If they are inactive for 12 months they lose all of their ranking points and will be treated as new players next time they play in a ranking event. In addition, all players lose 10% of their ranking points at the start of each season, which is designed to penalise those players who play less frequently.

There are mixed views on these rules. Some people believe that the current system does not provide a sufficient incentive to compete and that the system should penalise inactivity more severely. MAG made this point to us in their feedback. Others are concerned that treating players as new after 12 months of inactivity is too harsh.

We have analysed the impact of reducing everybody's points by 10% each season, and our conclusion is that this isn't working as well as it could be. The spread of points in each list is gradually reducing, which is not sustainable in the long-term, and it is having very little impact on relatively inactive players in the seniors lists. See appendix 3 for more detail. If we retain a relative system in the future, we would review these rules in order to better meet the principles that we identified in section 3 of this consultation document; in particular, those associated with accuracy and fairness.

If we have an absolute system in future, the issue of dealing with inactivity is effectively about the appropriate length of rolling points retention period. The ITTF approach (primarily based on a 12 month period) strongly reflects recent form by deleting points that drop out of this rolling period. We would have to consider whether 12 months is sufficient in the context of a (primarily amateur) domestic system where not everyone can play in many events, particularly if we have not integrated age-groups within a single list. The relatively low number of events entered by many players, identified in appendix 5, illustrates this point.

Questions for consultation – please see page 4 of the online survey

Q14. How do you think we could better deal with inactivity if we were to retain a relative system?

Q15. What do you think would be an appropriate duration for the rolling points retention period in an absolute system, and why?

Transition between age-groups

This is a particular issue for relative systems where categories of players are not integrated within a single list (see above). There is clearly no issue of transition between categories if all categories are part of the same list¹⁷. And in an absolute system, players will reach their appropriate place in their new category by the time the rolling points retention period has elapsed.

In our current system, when players move from one age-group to another, they take their points from the old category into the new category (replacing any points that they already had in the new category). This does not happen if it would result in a points reduction in the new category. For example, a junior on 1500 points would be placed on 1500 senior points when leaving the juniors unless he/she already had 1500 or more points in the seniors.

We believe that this present approach is flawed and we are aware that others (including MAG) share this view. There is no reason to assume that points on one list are equivalent to

¹⁷ But note our earlier comment that there has to be sufficient mixing of players for an integrated list to be robust

points on another list¹⁸.

However, one of our principles is that the ranking system should enable effective transition between age-groups, so if we retain a non-integrated relative system, we would look to improve the present approach such that the placing of players within their new age-group is more accurate.

Question for consultation – please see page 4 of the online survey

Q16. How could the present approach to enabling transition between age-groups be improved if we retain a non-integrated relative system?

New players

Catering for new players is primarily an issue for relative systems since in absolute systems the rating of new players has no impact on their opponents, and they will naturally find their correct level after one cycle of the rolling points retention period has passed.

Under the current system, the rules seek to allocate unrated players an initial ranking that depends on how they do in their initial matches against rated players. This isn't simply about trying to be fair to the new players; a key purpose is to be fair to their opponents. To this end, the points resulting from those initial matches are calculated on the basis of the new player's first rating rather than assuming they have zero points.

An additional rule is in place to provide an incentive to beginners by awarding them an initial 100 points if they win 3 games against other unrated players in a single playing day at a designated starter event. MAG has raised a concern with us over this rule, and in particular the interaction between this and the process of qualifications for the National Under 10-13 Championships.

We are conscious of the principles put forward in section 3 of this document in considering how any future system should treat new players; the principles of accuracy and fairness are particularly relevant, as is the need to avoid rules that are overly labour-intensive in practice.

Question for consultation – please see page 4 of the online survey

Q17. How could the current system for catering for new players be improved to better reflect our stated principles?

¹⁸ This is a characteristic of Elo systems – each ratings list is only valid for comparing the relative standard of the players on the list

Returning to play

The question of how the system should cater for players returning to play after a period away from the sport combines the issues of dealing with inactivity and new players (see above for both). We believe that the principles identified above for new players are also valid for returnees. However, there are more potential options to consider for how these principles could be applied in this case. For example, a possible approach would be to amend the rule whereby all points are lost after 12 months of inactivity such that players who do not play for an extensive period of time lose points more gradually.

Again, this is primarily an issue for relative systems.

Question for consultation – please see page 4 of the online survey

Q18. What are your views on the way in which the current system handles players returning after an extended period away from the sport, and how do you think this could be improved?

5.2 Further considerations

Bonus points

Our current system awards bonus points for those reaching the latter stages of tournaments¹⁹. These range from 2 points for reaching the quarter-final of a tournament with a weighting of 1.5, up to 100 points for winning a tournament with a weighting of 3.

If we retain a relative system, we consider that there would continue to be merit in awarding bonus points to provide an additional reward for those who perform well in tournaments. However, we acknowledge that members have concerns over the scope of the bonus point system and we would review this to ensure that it is as fair and complete as possible.

Integration with ITTF results

We have noted earlier in this document that the present system for awarding our players ranking points for their international results is complicated and highly labour-intensive to administer. This involves the creation of a dummy domestic rating for each of their opponents by reference to the world and national rankings, and then manually calculating the points impact of the individual matches.

If we retain a relative system, our view is that it would be sensible to radically simplify the way in which our international players gain domestic ranking points. This is an area where we believe that the balance between labour-intensity and accuracy is weighted too heavily

¹⁹ Subject to a minimum of 16 players taking part in the event

in the direction of accuracy at present. We would also review the present rule under which international wins against those ranked outside the top 30% of world-ranked players only earn 1 ranking point.

If we adopted an absolute system, it would be straightforward to make points awarded in the domestic system consistent with those awarded internationally (albeit generally a lot lower), thereby allowing our players' international points to count for the purpose of the national rankings.

Non-TTE players in TTE competitions

Players who are not eligible to play for England can compete in our open events and are able to earn rating points. Those who are members of Table Tennis England can appear in the ratings list but not the rankings list. Rules are in place to assign dummy ratings to foreign players at the upper end of the ITTF world ranking list. Otherwise, the rules for new players are applied as described above.

We are aware of concerns that under-ranking is a more prevalent issue for foreign players, particularly if they haven't played much in our qualifying events. This is an area that we plan to review alongside the general question of how to cater for new players (see above).

Events weightings

Our current system awards (and deducts) more points in bigger events. We continue to believe that this is appropriate since the availability of points is a mechanism for regulating the standard of the entry. For example, top players are more likely to be attracted to the higher weighted events because of the points on offer. Conversely, players of a lower standard will know that top players are less likely to be playing at the lower weighted events.

We intend to review the current event weightings to ensure they are appropriate and consistent.

Consequences of withdrawal or no-show

Under our current system, if a player withdraws or does not turn up for an event, their opponent will proceed within the event (or win the match in a team event) but will not get any ranking points. The person who has withdrawn, or has not shown up, does not receive a ranking points deduction. It is for consideration whether these rules are fair in respect of either player.

Conversely, if we move to an absolute system, we would have to consider whether it is appropriate for a player to receive the points associated with reaching a particular stage of a tournament if this resulted from receiving a walkover.

Ranking points for mixed events

As we note above, a fully integrated list would solve the problem of how to award ranking points in mixed events. The current system awards 1 point for wins in mixed matches where either player has fewer than 600 points, which we recognise is unsatisfactory. If we retain separate lists and a relative system, we will consider whether there is a better way of catering for mixed matches within the ranking system.

Provision for doubles

There are relatively few doubles matches played within our competition structure, and while this is the case we do not believe that it would be realistic to implement a national doubles ranking system.

Question for consultation – please see page 4 of the online survey

Q19. Do you have any other comments on the issues discussed above or any other thoughts on how the current national ranking system could be improved?

6. Next steps

Through this consultation process we are seeking:

- Feedback from individuals in response to this document
- Feedback from MAG and National Council as representative groups

In addition, we are keen to discuss the issues with as many people as possible via the drop-ins that we will be hosting at 5 events between late-January early-March (see section 1.3 for details).

The closing date for responses is **[20th]** March 2020. We will publish information on the consultation and our conclusions in the summer once the Board has made decisions on the way forward.

We will spend the remainder of 2020 developing our proposals in detail with the aim of receiving Board sign-off in December. Subject to the decisions made about any potential changes, we may wish to undertake further consultation on specific points.

We are aiming to implement a new ranking system or any necessary amendments to our current system in time for the 2021/22 season commencing in August 2021. If we plan to introduce major changes, we may consider a period of parallel-running to allow for testing and calibration of the new system.

Appendix 1- Current Events Weightings Table²⁰

<p>X 3 Olympic Games World Championships</p>	<p>X 1.5 Friendly International Matches 3 Star Open Tournaments 2 Star Open Tournaments County Championships (Premier) VETTS Regional Tournament (Over 40s only) English Leagues Cup Competition - Finals Table Tennis England Grand Prix & Satellite Grand Prix Home Countries Championships VETTS Rating Tournaments (<i>starter pts</i>) Inter Regional Championships Home Nations (Cadet & Junior) JBL, VBL & WBL Premier Divisions</p>
<p>X 2.75 European Championships (Senior)</p>	
<p>X 2.5 European Games Olympic Qualification Tournaments Commonwealth Games Euro-Asia Matches European Top 16 European Top 10 (Juniors) ITTF World Tour (Pro Tour) Major and Super European Champions League ITTF World Team Cup ITTF World Cup European Championship (Youth)</p>	
<p>X 2.25 Commonwealth Championships European Championships Qualification Matches ETTU Cup ITTF World Tour Challenger English Senior National Championships</p>	<p>X 1.25 County Championships (not Premier) British League /Junior British League Play-Offs Inter Regional Qualifications JBL, VBL, WBL & SBL (not premier divisions)</p>
<p>X 2 English National Championships (Cadet & Junior & U10-U13) Veteran National Championships Other Foreign Open Championships ITTF World Junior Circuit Cadet Six Nations Senior National Championships Qualifier</p>	<p>X 1 English Leagues Cup Competition National Junior League (<i>starter pts</i>) National Cadet League (<i>starter pts</i>) Regional Tournaments BATTS Super-League</p>
<p>X 1.75 4 Star Open Tournaments Under 12, Cadet and Junior National Cup VETTS National Masters (Over 40s only) Home Countries International Competitions Senior British League (Premier)</p>	<p>X 0.75 1 Star Open Tournaments</p>

²⁰ Events shown in **red** require England affiliated players to have a TTE player license. Events shown in **black** require England affiliated players to have a TTE player membership.

Appendix 2- Current Points Table

(Difference in player ratings shown down the left; event weighting shown across the top)

EXPECTED LOSSES						UNEXPECTED LOSSES					
	0.5	0.75	1.0	1.25	1.5		0.5	0.75	1.0	1.25	1.5
0-24	-2	-3	-4	-5	-6		-2	-3	-4	-5	-6
25-49	-2	-3	-4	-5	-5		-2	-3	-4	-5	-8
50-99	-2	-3	-3	-4	-5		-3	-5	-6	-8	-9
100-149	-1	-2	-3	-4	-4		-4	-6	-8	-10	-12
150-199	-1	-2	-2	-3	-3		-5	-8	-10	-13	-15
200-299	-1	-2	-2	-2	-2		-6	-9	-12	-15	-18
300-399	0	-1	-1	-1	-1		-8	-12	-16	-20	-24
400-499	0	0	0	0	0		-10	-15	-20	-25	-30
500+	0	0	0	0	0		-13	-20	-26	-33	-39
EXPECTED WINS											
	0.5	0.75	1.0	1.25	1.5	1.75	2.0	2.25	2.50	3.0	
0-24	4	6	8	10	12	14	16	18	20	24	
25-49	4	6	7	9	11	12	14	16	18	21	
50-99	3	5	6	8	9	11	12	14	15	18	
100-149	3	4	5	6	8	9	10	11	13	15	
150-199	2	3	4	5	6	7	8	9	10	12	
200-299	2	2	3	4	5	5	6	7	8	9	
300-399	1	2	2	3	3	4	4	5	5	6	
400-499	1	1	1	1	2	2	2	2	3	3	
500+	1	1	1	1	1	1	1	1	1	1	
UNEXPECTED WINS											
	0.5	0.75	1.0	1.25	1.5	1.75	2.0	2.25	2.50	3.0	
0-24	4	6	8	10	12	14	16	18	20	24	
25-49	5	7	9	11	14	16	18	20	23	27	
50-99	6	9	11	14	17	19	22	25	28	33	
100-149	7	11	14	18	21	25	28	32	35	42	
150-199	9	13	17	21	26	30	34	38	43	51	
200-299	11	17	22	28	33	39	44	50	55	66	
300-399	15	23	30	38	45	53	60	68	75	90	
400-499	20	30	40	50	60	70	80	90	100	120	
500+	25	38	50	63	75	88	100	113	125	150	

Appendix 3 - Analysis of impact of 10% annual points loss

In our current ranking system, every player has 10% of their points deducted at the start of each season. This is designed to provide an incentive to play. The idea is that those who play very little will gradually fall down the ranking list as they lose 10% of their points each year. Those who play a lot should benefit from the in-built inflation within the ranking points structure (see appendix 4) and therefore gain ground over those who play very little.

We have analysed how this system of annual points deduction has worked in practice over the last 5 seasons (i.e. from the start of 2014/15 to the start of 2019/20).

First, we have looked at the number of points at fixed places on a variety of ranking lists. The example below shows how the number of points of the player ranked at number 30 has changed in the veterans, seniors and junior lists (both genders in all cases).

(V = veteran, S = senior, J= junior, M = men, W = women, B = boys and G = girls)

	VM	VW	SM	SW	JB	JG
Percentage reductions in #30s over 5 years	28%	29%	34%	44%	19%	-9%
Average percentage reduction in #30s	6.4%	6.7%	7.8%	10.9%	4.2%	-1.7%

This pattern is typical of what we see at other positions on the ranking lists. It indicates that, other than junior girls, the lists are gradually compressing, i.e. that over time fewer points separate those at the top of the list from those at the bottom. We do not consider this to be a sustainable situation.

The problem is particularly marked in the senior women's list where the average reduction in the points of the number 30 is greater than the 10% annual reduction, indicating that no ground is being made up through inflation.

Second, we considered what would happen if someone played the minimum amount possible in order to stay on the ranking list. The 10% annual reduction is intended to cause such a player to gradually fall down the list. To do this analysis, we assumed that the number 10 on each list at the start of 2014/15 neither gained nor lost any points by playing each year – they simply lost 10% of their points annually. The table below indicates how the players' rankings would have changed in the subsequent five years.

	VM		VW		SM		SW		JB		JG	
	Points	Ranking										
2014	2380	10	2212	10	3145	10	2501	10	1381	10	985	10
2015	2142	16	1991	13	2831	9	2251	8	1243	15	887	14
2016	1928	26	1792	14	2547	13	2026	11	1119	21	798	15
2017	1735	40	1613	22	2293	13	1823	13	1007	22	718	25
2018	1562	59	1451	30	2063	13	1641	13	906	36	646	28
2019	1405	82	1306	52	1857	14	1477	12	815	49	582	35

This analysis reinforces the problem observed above for the senior lists in particular, with the senior man at number 10 only falling to number 14 after five seasons, and the equivalent senior woman only falling to number 12.

Our conclusion from this analysis is that the practice of simply deducting 10% from every player's points at the start of the season is not working as intended. We would therefore intend to review this approach if we retain a relative ranking system.

Appendix 4 Analysis of inflation within the current system

To illustrate how inflation is built into the current ranking system, the following analysis shows how the ranking points of two players of equal standard would change if they played each-other ten times.

We assume that they start on the same number of points, say 1600. In the first case, player A wins the first five times and player B wins the second five times. In the second case, they win alternately. The points awarded and deducted assume an event weighting of 1.25 (equivalent to the non-premier divisions of the County Championships or British League).

Points			Winner	Impact	
A	B	Diff		A	B
1600	1600	0	A	10	-5
1610	1595	15	A	10	-5
1620	1590	30	A	9	-5
1629	1585	44	A	9	-5
1638	1580	58	A	8	-4
1646	1576	70	B	-8	14
1638	1590	48	B	-5	11
1633	1601	32	B	-5	11
1628	1612	16	B	-5	10
1623	1622	1	B	-5	10
1618	1632	-14			

Points			Winner	Impact	
A	B	Diff		A	B
1600	1600	0	A	10	-5
1610	1595	15	B	-5	10
1605	1605	0	A	10	-5
1615	1600	15	B	-5	10
1610	1610	0	A	10	-5
1620	1605	15	B	-5	10
1615	1615	0	A	10	-5
1625	1610	15	B	-5	10
1620	1620	0	A	10	-5
1630	1615	15	B	-5	10
1625	1625	0			

This demonstrates that each player gains points (between 18 and 32 depending on the order of the wins and losses). Note that while we have chosen starting points of 1600 for this illustration, the points increases would be identical whatever starting points the players were on provided they were the same as each-other.

Appendix 5 - Activity analysis: how much are people competing?

In order to inform this consultation, we have undertaken indicative analysis to derive estimates of the number of events that players are competing in and the number of matches that they are playing. The analysis is based on matches played in the first 5 months of the 2019/20 season (August to December).

There are a few reasons why this analysis is indicative only. In particular:

- Results from a small number of events had not been received at the time the data was extracted²¹.
- The analysis includes all players with a rating (i.e. including home country and international players with a Table Tennis England ID). It will therefore overstate the number of ranked players.
- We have had to make some assumptions and approximations when counting the number of events that players have played in – see notes at the end of this appendix.

In summary, the analysis shows a great variation in activity levels between players. The average number of events played is typically around 2 per player within each age-group for the half-season, and nearer 3 across all age-groups. However, many players have only played in 1 event whereas a few have played in over 20.

The average number of matches played has varied across the age-groups between 11 per player (in veterans) and 17 (in cadets and juniors), while over 200 people have played 50 or more matches across all age-groups in the 5-month period.

It is not possible to predict full-season activity levels accurately given this data, but we think that slightly more than double the averages presented here would provide a reasonable indication.

Aggregate analysis

Total number of players: 3511

Age-groups competed	# players
1	2629
2	816
3	66

Total number of matches played	32975
of which, matches played in domestic competition	32303
matches played in international competition	672

Average # events played per player (mean)	2.8
Most common # events played per player (mode)	1
Fewest events played by any player	1

²¹ The missing data is for 1547 matches, approximately 4.5% of the total played in the period,

Most events played by any player	27
----------------------------------	----

Average # matches played per player (mean)	18.7
Most common # matches played per player (mode)	6
Fewest matches played by any player	1
Most matches played by any player	161

Analysis by age-group

Cadets

Number of players: 1217

Number of matches played	10105
of which, matches played in domestic competition	9920
matches played in international competition	185

Average # events played per player (mean)	2.4
Most common # events played per player (mode)	2
Fewest events played by any player	1
Most events played by any player	14

Average # matches played per player (mean)	16.5
Most common # matches played per player (mode)	9
Fewest matches played by any player	1
Most matches played by any player	111

Juniors (includes cadets playing in junior events)

Number of players: 1144

Number of matches played	9812
of which, matches played in domestic competition	9550
matches played in international competition	262

Average # events played per player (mean)	2.5
Most common # events played per player (mode)	2
Fewest events played by any player	1
Most events played by any player	13

Average # matches played per player (mean)	17.0
Most common # matches played per player (mode)	18
Fewest matches played by any player	1
Most matches played by any player	73

Seniors (includes other age-groups playing in senior events)

Number of players: 1262

Number of matches played	8639
--------------------------	------

of which, matches played in domestic competition	8454
matches played in international competition	185

Average # events played per player (mean)	2.1
Most common # events played per player (mode)	1
Fewest events played by any player	1
Most events played by any player	13

Average # matches played per player (mean)	13.6
Most common # matches played per player (mode)	8
Fewest matches played by any player	1
Most matches played by any player	91

Veterans

Number of players: 836

Number of matches played	4419
of which, matches played in domestic competition	4379
matches played in international competition	40

Average # events played per player (mean)	1.9
Most common # events played per player (mode)	1
Fewest events played by any player	1
Most events played by any player	9

Average # matches played per player (mean)	10.6
Most common # matches played per player (mode)	4
Fewest matches played by any player	1
Most matches played by any player	58

Notes on how we have counted events

We have made the following assumptions when counting the separate events that players have competed in during the first half of the season:

- County Championships counts as one event per age-group
- JBL, WBL, VBL and SBL (not premier) each count as one event per weekend
- SBL (premier) counts as one event across the half-season
- NJL and NCL count as one event per day
- Grand Prix Banded events count as one event per Grand Prix (although we recognise that for many players this would be two events), while all other Grand Prix singles events are counted individually
- U13s events count as cadets
- U21s events count as seniors