

Environmental Sustainability in a Fast-Emerging Sport

The Sportification of Padel

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Introduction

This chapter uses the development of padel in Sweden as an illustrative case to discuss the conditions of a fast-emerging sport and some of its consequences in relation to sportification and environmental sustainability.

The sport padel, often described as a combination between tennis and squash, has rapidly become popular in Sweden and has exceeded both tennis and ice hockey in number of indoor facilities (Schüllerqvist, 2021). Never has Sweden seen a sport emerge and increase in popularity in such a short period of time – more than doubling the courts for six years in a row, from only 40 courts in 2015 to 3,500 in 2021 (Elitepadel, 2022). In comparison, during the Swedish tennis boom of the 1960s, it took ten years to go from 450 clubs to 900 (Wijk, 2010). This was considered fast at the time, but it is slow in comparison to padel today. Far from being only a Swedish success story, padel has grown rapidly in several countries – for example, Italy, with a fivefold increase in number of courts during the COVID-19 pandemic (Jones & Tondo, 2022).

Sportification incorporates both classic and new elements of a development perspective to a modern sport, making it a suitable tool to frame a fast-emerging sport such as padel. Sportification invariably influences many sports and sport activities – regardless of origin or geographic place – and comes with environmental consequences (Svensson et al., 2020). Padel is one example of how a new sport sportifies, challenges existing organisational and physical infrastructures, and creates new ones (Demi & Aarden, 2022). Another example of this in Sweden is e-sport, which is also becoming more organised and systematic. However, unlike the more (post)modern e-sport, padel is a traditional (racket)sport and may potentially clash with tennis and the Swedish sport system. Therefore, it is important to understand the obstacles, as well as the potential, padel has in relation to environmental sustainability.

Using padel in Sweden as an example, this chapter aims to discuss environmental sustainability processes and challenges related to different aspects of sportification such as institutionalisation, eventification, and commercialisation. It investigates where, when, and how sportification can be a fruitful perspective to

understand these challenges. It also explores how the lack of sportification can hinder or enable solving such challenges. Lastly, it examines how an internal sport-development process such as sportification interplays with external societal driving forces, especially commercialisation.

Reasons for studying padel in Sweden

Why is this racket sport – still unknown in parts of the world – relevant to study, and why in Sweden? First, the rapid increase of padel courts and interest for the sport is a reason for looking further into padel. Moreover, as an extreme or unique case (Yin, 2003), padel can deepen our understanding of sportification processes when its specific development is compared with other traditional popular sports, such as tennis or soccer, that have also undergone sportification processes. Although the development of padel in Sweden cannot perhaps be generalised in relation to other sports, discussions can be transferable or can highlight general relations between sports, society, and both contemporary and future environmental challenges.

Second, and linked to the fast arrival of padel, the birth of padel in Sweden – in 2010 – coincides relatively well with the increasing environmental sustainability demands on sport in light of climate changes and global warming. Sport, as any other part of society, is nowadays expected to be environmentally responsible, although the results hitherto have not been impressive, neither globally (Wilson & Millington, 2020) nor specifically in Sweden (Book & Carlsson, 2011). However, a recent report shows that environmental policies and checklists are currently being initiated among Swedish sport associations (Larneby et al., 2022). Many sport federations claim they find this work important despite it not having a clear place on the agenda and, therefore, not being considered a natural part of their work.

Third, Sweden as a case study is logical because it is one of the countries with the most padel players and courts per capita. Accordingly, Sweden stands out even if a similar development takes place in other countries in Europe. Although the Swedish sport system shares common features with how sport is organised in other European countries, the way padel has been organised has made the padel boom in Sweden different to many other sports. In fact, in the Swedish sport model, sport is traditionally governed and administered by the non-profit sector, even if it is financially funded by the public sector. The model consists of associations on three different levels: a national level (The Swedish Sports Confederation, SSC [in Swedish *Riksidrottsförbundet*, RF], and sport federations); a regional level (regional and district sports federations); and a local level (sport clubs). Most sports, for example, soccer and tennis, are organised in this way. Padel does not follow this model; instead, the driving force is corporations that have built facilities and courts. This can partly explain the rapid increase. Without entrepreneurs from the corporate sector, it would have been highly unlikely for a padel boom to take place as neither local tennis clubs nor other non-profit organisations and

public actors would have been able to facilitate it. This circumstance – that most padel organisers are not bound by the traditional Swedish sport model – can also have implications on environment issues. Namely, the lack of traditions and the existence of economic incentives in corporate padel centres are conditions that may work both for and against environmental sustainability.

Sportification and environmental sustainability

One way to understand the characteristics of the development of a sport is the term *sportification*. Although not using the term himself, Guttmann (2004) describes seven steps of how a sport develops from a traditional game to a modern sport: secularism, equality of opportunity, specialisation, rationalisation, bureaucratisation, quantification, and pursuit of records. Other processes have been added to understand more recent developments of sport, such as medialisation and technologisation (Pargman & Svensson, 2019). For a detailed view on sportification, see the introduction chapter of this book and Svensson et al. (2020).

The sportification of padel has impacts on environmental sustainability challenges. In this chapter, “environmental challenges” refer to a wide spectrum of impacts on nature. Further, “sustainability” is addressed with a focus on environmental rather than economic or social aspects. Economic and social aspects are discussed briefly but not as a part of overall sustainability. Establishing a delimitation, this chapter will not discuss the whole concept of sustainability. Lastly, sustainability has an implicit future aspect; namely, what is viewed as sustainable today might be unsustainable tomorrow, and this chapter uses historical and contemporary sources in order to also look into future challenges.

Disposition, scientific approach, and sources

This chapter contains five different sections. The introduction is followed by a short global historical background to padel, followed by examples from the Swedish contemporary case. The third section focuses on the corporate sector and padel centres, and the fourth on the material used in equipment and facilities. In the last section, an overall conclusion is presented.

The sections can be read separately; however, they are intentionally placed in a certain order to create and build up contexts for each other. United, these sections can also be understood as a “story of padel”, where links can sometimes be visible between places, actors (organisations and players), and time. This story, or chapter, references written documents (mostly by sport actors, in both the non-profit and corporate sector) that have a relevance to sportification, that is, looking backward, and environmental sustainability, that is, looking forward. Contextualising the documents in time and space is crucial to avoid seeing them in a too narrow perspective (Fairclough, 2003). Inevitably, width is consciously favoured at the expense of depth – in order to cover several aspects of sportification and different environmental concerns and to extract discussions between them.

Methodically, the documents were chosen to highlight different perspectives and to promote discussion. The documents not only include reports, news articles, and web pages (including social media) about padel specifically, but they also include sources such as statues from the Swedish Sports Confederation that are relevant for the aim of the chapter. In addition, academic literature is used to deepen the discussion. Since there is a knowledge gap of research that is focused on padel, especially that linked to environmental sustainability, student-based theses are also included. This broad spectrum of documents is used to avoid a one-sided perspective. Furthermore, it is important to critically view the documents' senders and their purpose (see Fairclough, 2003), especially when the texts come from padel organisers, who have self-interest in what information they present. Therefore, some sources are reviewed in the chapter when they are introduced.

Sportification of padel – Point of departure

This section briefly describes the sportification of padel from a historical perspective, both on a global level and on a Swedish level. The latter provides a background for the Swedish case which is the focus of this chapter. The environmental aspects are emphasised throughout but especially in relation to the Swedish Padel Association's effort to gain membership in the Swedish Sport Confederation. In addition, a micro-eventification is also identified as a sportification aspect that has environmental implications.

Global and local historical background and context

Different processes of sportification such as specialisation, standardisation, and institutionalisation came to characterise padel not long after its birth. The first padel court was built 1962 in Mexico by the businessman Enrique Corcuera – the “inventor” of padel – in his own backyard (International Padel Federation [IPF], 2017). According to Corcuera himself, he wanted to give his friends something simple and joyful to play. His wife Viviana wrote the rulebook, and a new sport was born. Corcuera's friend Prince Alfonso de Hohenlohe brought the sport to Spain a few years later and started to organise tournaments.

Padel began to be sportified already in the 1970s, moving from a recreational, backyard, or holiday game to a modern sport. When the sport arrived in Argentina, different rules and court features in Spain and Argentina became an issue for padel organisers (IPF, 2017), creating a need for both standardisation and institutionalisation. Thus, the International Padel Federation was born in 1991, arranging the first world championship the year after. By 1997, the rules of padel were unified and court regulations were modified; for example, all courts must have the same fence height. Nonetheless, the standardisation processes in 1997 did not include choice of court material: “Materials were left at own discretion” (IPF, 2017, p. 6). In Spain, padel was played on synthetic turf, while Argentinian courts had a plain concrete surface, which made the ball move faster and accelerated

the game (IPF, 2017). The diversity in surfaces at the time included even parquet, tiles, and clay.

Further, the sport went through a process of technologisation of the material, which can be seen in its rackets, for example. The first rackets, called “bats”, were wooden paddles. Different materials such as plywood, aluminium, rubber paint, resin, and fibreglass have been used for the rackets to improve the game (IPF, 2017). Today, a padel racket consists of different types of material as a result of technical development. Regarding the balls, tennis balls were used in the beginning, but special padel balls have been used for the past 20 years. Material and equipment in padel today are discussed in-depth in the fourth section of this chapter.

From a specialisation perspective, the overall relation between tennis and padel is interesting not just in terms of balls and equipment. Historically, padel has often been played close to tennis courts. During the 1980s, San Juan Tennis Club in Buenos Aires built two padel courts alongside their tennis courts “that became a landmark of Argentinian padel” (IPF, 2017, p. 4). Despite the foundation of separate and distinct national padel federations – starting in 1988 – padel has remained built, organised, and administrated close to tennis in several countries. For instance, in the Netherlands, the tennis and padel federations are merged, and a large part of the growing physical infrastructure of padel, starting in 2010, was located at non-profit tennis clubs rather than corporate venues (Hoeijmakers & Romijn, 2018). Nonetheless, there has been an increase in commercial padel courts in the Netherlands over the past few years. In Norway, the situation is partly the same as in the Netherlands in terms of institutionalisation: padel was integrated to the Norwegian Tennis Federation in 2015. In contrast to the Netherlands, Norway has a large number of corporate courts (similar to Sweden).

We gain much from this short description of the historical sportification of padel – a development that is mostly built upon a narrative shaped by the IPF, perhaps aiming to portray a positive development of their sport. In brief, the global emergence of padel has clear elements of sportification connected to standardisation and technologisation in material and equipment, to institutionalisation through organisations, and to specialisation in relation to tennis. There are environmental implications for many (if not all) of the sportification processes of padel. Above all, specialisation and the relation between tennis and padel ought to be considered from an organisational point of view – not least seeing that the organisational structure can be crucial to understanding preconditions for environmental actions.

Prior to the official organisation of padel in Sweden, and similar to Mexico and Spain, Swedish padel started to develop alongside tennis. In Båstad, a village in the southwest that is most famous for hosting an annual professional tennis tournament, two of the first padel courts in the nation were built in 2008 and 2010. The latter, located at a main street, functioned during the summer as a “display window”, so to speak, in that it presented the “new” sport to tennis enthusiasts and other holiday visitors that crowded the village (Håkansson, 2021). The sport

then spread to different parts of Sweden as tennis clubs, private enthusiasts, and the first corporate entrepreneurs invested time and money to build courts.

Today, padel in Sweden is mainly a market-driven industry with small facilities (local companies operating only one or a few padel centres), alongside larger facilities (larger businesses owning many centres). Padel courts are mostly provided by the corporate sector, but a few are run by non-profit tennis or padel clubs. Some of the padel clubs are members in the Swedish Padel Association, which will be discussed below.

Institutionalisation, SSC membership, and environmental concerns

The institutionalisation of padel in Sweden started early in relation to the number of courts in 2010. The Swedish Padel Association (SPA) was founded in 2010, and by 2021, it had 120 clubs with 24,000 members and 2,100 licensed players (Svenska padelförbundet, 2021). However, these numbers do not represent the whole picture because most padel players are not members in a padel club in the non-profit sector. According to the SPA, less than 5 per cent of the total number of players (540,000) that played padel 2021 were members in padel clubs. This tells us that padel in Sweden is mainly a commercially organised sport and indicates, on the one hand, that the SPA so far is a subordinated actor compared to the corporate actors.

In 2021, the SPA finally became a member of the Swedish Sports Confederation (SSC), the sport movement's common umbrella organisation. For organised sport in Sweden, membership in the SSC is important for many sport federations because it means both recognition and access to various forms of public grants. The SPA had applied twice before but was denied membership in the SSC on the grounds that padel as a sport showed too many similarities to tennis. However, in 2021, the SSC stated that padel had developed into a sport that can no longer be considered closely related to the Swedish Tennis Association's sports activities. The membership is crucial for SPA, not only to strengthen economic resources but also to gain access to knowledge and competence from the SSC (Andersson, 2021).

The SSC has many criteria for membership, but none of them concern sustainability (RF, 2020). Besides specialisation – namely the requirement of constituting a unique sport – there are three criteria that must be fulfilled to gain membership in the SSC. One of them is especially interesting from an environmental perspective: the association's activities must be in line with the business idea, vision, and values decided by the SSC (RF, 2020, p. 22). In the SSC's six-page "Policy for a sustainable Swedish sport movement" (RF, 2022), there are visions and values related to environmental issues, but environmental responsibility is not addressed as an important criterion in the membership process. This is not surprising since the Swedish sport movement historically has focused directly on organising sport and only indirectly, as a by-product, on social sustainability (to include as many

people as possible, based on the principle that sport clubs should be open for everyone). One argument for not emphasising environmental sustainability in the membership process could be that knowledge and competence can be shared by the SSC at a later stage, after the membership is approved. In summary, today there are no requirements from the SSC on new members regarding environmental sustainability, apart from the fact that they are expected to follow the organisation's common value base. Consequently, steering sport organisations towards environmental sustainability is weak.

Similarly, the SPA's ambition to govern their clubs towards environmental sustainability is also inadequate. On their webpage, the SPA states the value of social sustainability, but no environmental policies are visible (Svenska padelförbundet, 2022). Without neglecting the importance of social issues, an increasing number of other Swedish sport federations are now able to focus on environmental sustainability (Larneby et al., 2022), and some also communicate its importance externally.

From institutionalisation of padel, we now head to a recent step of the sportification process: eventification.

Micro-eventification and Americano

Eventification can be seen as a trend both in society in general and in sport. Therefore, it can be considered another aspect of sportification. Eventification, characterised by its focus on excitement and entertainment, has challenged the one-sided focus on results and records in traditional competitions (Carlsson et al., 2022), for example, by adding new formats to competition.

A certain kind of eventification, in a local micro-format, can be found in Swedish padel. Sport events in general are usually associated with major competitions, often with an audience, but as padel in Sweden has grown, and with it the number of players and courts, padel centres and non-profit clubs now offer local micro-events with minor competitions. Some padel players may only informally compete with their friends, colleagues, or family members, but for those who are interested in playing tournaments, an increasing number of opportunities exists. Thus, padel events are different to how competitions are organised in Swedish tennis, where there is a traditional system with mostly regional and national competitions and fewer local ones. In general, tennis tournaments are dominated by youth categories and fewer adults participate. However, in padel, the situation is more complex. SPA-sanctioned contests do exist, but mainly for elite and advanced players and with a traditional ranking system to divide players into different tournament categories. However, most padel players in Sweden are adult recreational players (Ekvall & Karlén, 2021), and if they want to start to play tournaments, they can participate in minor, local competitions.

For example, one common form of padel competition is *Americano*, an event where all players are lotted into different teams for every match and get to face each other during the event, instead of playing with the same partner all the time.

In such events, players do not leave the tournament after one lost match, as in a traditional tennis or padel tournament. The overall winner is the player who wins most points in all matches together. For players, the results are still important in an Americano event, but they are trumped by the joy and excitement of playing with new partners. Moreover, the level of play that is reached in the constantly renewed teams is not optimised, compared to when players that know each other well form a team and compete in a traditional tournament. In summary, this type of event challenges the typical drive to make a sport reach as high a level as possible.

In contrast to tennis, padel has different classification systems for player levels. The most common system, provided by MATCHi (Elitepadel, 2021), contains ten levels: from players who struggle with getting the ball into the court (level 1) to players who compete in national or international tournaments (level 10). The players use this categorisation in digital applications to find other players on a similar level, to team up with or play against. According to Demi and Aarden (2022), players are not very accurate in their self-categorisation on this scale, so the use of such categorisation by tournament organisers might be problematic because the categorisation is not built upon actual results as in a traditional ranking. On the other hand, in Americano events, all players play with all players, regardless of their ranking or classification. Accordingly, an Americano micro-event can also be interpreted as a form of resistance to sportification, as the ranking and classification of players (i.e. a form of standardisation) are less important.

What implications for environmental sustainability can this local micro-eventification have? In contrast to larger events, where people travel long distances, micro-events require less transportation since players compete in their own town or region and do not need to travel far to play matches. The widespread geographic padel infrastructure in Sweden also facilitates competing locally, and for some players, this will meet their need for competition. For others, local and non-traditional tournaments like Americano might be a gateway to climbing further up on the “competitive ladder” – to playing traditional regional, national, or even international tournaments. This will then lead to more transportation as these players improve and want to test and raise their playing level.

Transportation is a crucial element in environmental sustainability. However, the overall character of the event is important to consider, not just in terms of players’ transportation but also what kind of food and drink is served at the event, what kind of balls are used, and how waste is taken care of by the organiser. This leads us into the next section, the most common place where padel is played: a commercial padel centre. Why, how, and when do they relate to environmental challenges?

Padel centres – Commercialisation, speed, and sustainability

This section focuses on the commercialisation of padel and indoor courts in corporate padel centres – one of the main driving forces behind the Swedish padel boom. The relation between commercialisation and sportification is discussed

with regards to speed and sustainability. Finally, three examples of environmental efforts in padel centres are presented.

Overview of physical infrastructure

A majority of the approximately 3,500 courts in Sweden are corporately owned and can be found in indoor padel centres, which may have one or several courts (Svenska padelförbundet, 2021). There are 700 padel centres; the majority of them are newly built facilities, but some have repurposed existing industrial buildings. A padel centre consists of courts, dressing rooms, often a seating area, and sometimes a shop or a cafeteria. They are, in general, relatively spartan buildings without stands for spectators; hence, they do not function like stadiums, and their purpose is often only to host everyday games and local micro-events, as mentioned in the previous section.

These facilities do not have to comply to any standardised demands from the Swedish Padel Association, apart from court-related standards when they want to host a sanctioned contest. In contrast, in a “stadium sport” such as soccer, Swedish clubs have to meet demands from both the Swedish Football Association and FIFA, which sometimes causes conflicts with municipalities since many stadiums are publicly owned (Alm, 2017). Nonetheless, padel centres are most often privately owned, and owners are free to design their facilities as long as they have building permits and follow general construction laws from the municipality. According to the Swedish environmental legislation in connection with physical planning, an environmental impact assessment must be conducted in all projects which can have an impact on the environment (Environmental Act, 1998).

The relationship between commercialisation and sportification

The foundation for building and operating a corporate padel centre is principally financially motivated according to the logic of commercialisation – the search for profit. The commercialisation of sport can be viewed as a part of sportification (Pargman & Svensson, 2019). This is the case when commercialisation is used as a tool to develop a sport in terms of performance, for example, when a corporately owned soccer club uses a part of the profit from sales and sponsorships to strengthen the team and players by investing in human and technical resources. This is mainly relevant on an elite level.

However, the commercialisation of padel as a sport in Sweden works on a recreational basis, renting courts to players or non-profit clubs. The commercialisation and its profits may not directly develop the sport in terms of improving performance, but they do promote the development of a physical infrastructure – especially in regions where padel centres compete to attract players. Competitions and contests on equal terms are a central part of capitalism and of sportification, too, according to Guttmann (2004). Moreover, the fundamentals of going “faster”, aiming “higher”, and becoming “stronger” expressed in the Olympic motto – a

precondition for sportification – can also be said to be the logic in a market economy. Therefore, commercialisation and sportification have an intertwined relationship where the profit is sometimes used to develop sport but sport is also used to generate profits. In padel, the latter scenario is more likely to occur than the former based on the recreational play in padel centres, where elite performances are rare. However, in the long run, more (youthful) players can lead to better performances.

As stated, corporate padel centres have environmental implications, but in what ways? To understand these implications, we must first look at the motives of padel centre owners to minimise their negative environmental impact.

Why should they care?

As with any owner of sport facilities, owners of padel centres must consider their environmental impact; leastwise, they must comply with regulations and laws. This includes choice of location; material used in the construction of buildings; and everyday operations, for example, energy use and water consumption.

“Why should we care more about the environment”, the owners of a padel centre might ask themselves. Do they have a larger responsibility (than public or non-profit actors) because they are new or corporate actors? Arguably, a non-profit club with public subsidies ought to take a larger responsibility than corporate actors in terms of social sustainability (i.e. including as many people as possible). This is mainly because the municipalities provide non-profit clubs with public means to promote youth training. While non-profit clubs are occupied with social issues, corporate businesses ought to have a corresponding emphasis on environmental issues, if nothing else, to strengthen their brand as socially conscious companies, in line with the concept of CSR (corporate social responsibility). Thus, the motives regarding the question of responsibility among different actors are relevant but demand more room for reflection, beyond this chapter.

Despite not being among the worst environmental “sinners”, sport has an environmental impact in different ways. Can padel centres act as new potential role models in environmental issues, as McCullough and Kellison (2017) propose for sport organisations? We cannot demand – only hope – for more sustainability-oriented actions from new actors in sport. Although they cannot be forced to take extra care of the planet, new sport organisers can be encouraged. Financial motives play an important role here.

Sanderson and Shaikh (2017) state that there are several different reasons, in addition to purely altruistic motives, for why organisations work for environmental sustainability. The first is “direct return”, for example, upgrading an energy system can quickly yield a profit with lower energy consumption. “Indirect return or reward” concerns the PR, sponsors, and reputation that in the long run give a profit. A third reason concerns the regulation and laws that force an organisation to take a measure to avoid, for example, being punished with a fine, while a fourth is the other way around: the measure is positively rewarded by receiving

municipal or state support, for example, to build a new arena. The motives of indirect return and reward can be connected to being a role model (McCullough & Kellison, 2017) and show that there need not be any opposition between having economic motives and being in the forefront of working for increased sustainability: in this scenario, they can point in the same direction.

However, are commercial padel centres inclined to take the lead in environmental issues? The overall picture is difficult to grasp, but it does not look too bright. The two largest corporate actors in Sweden at present, Padel united and PDL, do not mention the environment on their websites. On the other hand, selling a service, such as leasing padel courts, is not necessarily benefitted by marketing green efforts. On the contrary, some efforts might be performed even though they are not marketed, for example, using low-energy lamps or offering recycling bins.

Examples of environmental efforts

There are a few examples of more substantial environmental efforts in some padel centres. Two of them are presented and discussed here. The first is Hede padel centre, located in Kungsbacka, not far from Gothenburg. Hede padel centre is certified with Miljöbyggnad's silver level based on three overall areas: energy, indoor climate, and choice of material (Castellum, 2021). Miljöbyggnad (green building) is one of a few widely used Swedish environmental certifying systems. Certification systems are used as a proof that buildings meet certain pre-set standards or rules from a sustainability and environmental perspective, and they provide certification when buildings go further than what is required by the law. The reasons to meet these standards can differ, but in the case of Hede padel centre, this certification is not visible on their website and not used as a selling argument to padel players. Information about the certification of Hede padel centre is only available on the website of the real estate company, Castellum (2021). On this site, one of the owners of the padel centre also says that they offer electric chargers for cars and fair trade products as more examples of sustainable work, which can have both direct and indirect return. Electric chargers, unlike energy and material, can be seen as having a direct consumer value, and fair trade products also appeal to the well-educated middle class that is often seen playing padel in Sweden (Ekvall & Karlén, 2021).

Another interesting example is found in Höllviken, in the tip of the southwest of Sweden. Built in 2018 with roof solar panels, heat pumps, and geo-energy, Padelcourt No. 9 has taken a step towards sustainability through energy independence (Sydsvenskan, 2021). By using geothermal energy, this padel centre lowered the costs of the climate operation of the facility – that is, cooling the temperature in summer and heating in winter. The initial investment was considerable according to the owners, but it paid off quickly because of the low operational costs. This can be seen as an example of direct return. In comparison to Hede, Padelcourt No. 9's energy information is not visible via the centre's own website

but through an advertisement for Skånska energi, the energy company that built the system. Therefore, neither the centre in Kungsbacka nor in Höllviken can be accused of displaying measures which can be regarded as greenwashing. The term “greenwashing” is used to describe when an organisation shows a minor sustainable effort to hide a larger unsustainable activity, a phenomenon discussed in relation to other sports (Miller, 2016).

How can we contextualise padel centres’ environmental efforts? McCullough et al. (2016) present a conceptual model for how the sport’s organisers approach the work for ecological sustainability. They describe it as a wave motion without an end and distinguish three waves. The first is about *awakening*, establishing education and simpler activities, such as recycling. In the second wave, the awakening becomes *knowledge* when the education is spread and activities become more advanced, such as environmental certification. The third wave involves the knowledge being translated into *strategy* and still working systematically, sophisticatedly, and proactively.

This model is extensive but mainly applicable for larger organisations. To categorise single padel centres according to the three waves is difficult by only looking into documents and web pages. Based on them, Hede padel centre seems to be in the second and third wave, and the Höllviken padel centre somewhere in the first and early second wave. The question is, have most centres even reached the first wave? More research is required to answer this question.

To conclude, there are some signs of technical, environmentally friendly initiatives among a few corporate padel centres. However, it is not plausible to consider them representative for the whole population of padel centres. Environmental sustainability efforts are not likely to be at the top of many corporate businesses’ agendas – unless they have a significant impact on profit, as Sanderson and Shaikh have stated (2017).

Speed, size, and sustainability

As described in the introduction, speed characterises the development of padel in Sweden. When and how can high speed and environmental sustainability fit together? With the corporate sector’s ambition to optimise profit, a short-term perspective and environmental sustainability can be difficult to combine. Going through an environmental certification process or aiming for a sustainable energy system might have been not only costly in the short term but also too time-consuming for many padel centre owners. When you want to reach potential customers (padel players) as soon as possible, short-term financial logic necessitates building a padel centre in just a few months, as quickly and as simply as possible, so that no one else can get ahead on the market. Speed and short-term profit perspectives can therefore be a large hindrance for a greater environmental concern.

Another obstacle can be lack of capacity. Stevens (2017) argues that the process of environmental sustainability requires financial, structural, and strategic capacity. Capacity describes the opportunity (through knowledge and ability) for

people, institutions, and practitioner to build a sustainable business in the long term. Size, in terms of large enterprises, ought to be neither automatically a precondition nor an obstacle for sustainability. For example, Padel United, a company that owns more than 100 padel centres in Sweden, ought to have greater financial and human resources and capacity to invest in environmental sustainability than small businesses. On the other side, in a small and local company, the personal engagement with the community and environment can be crucial: “We have never been interested in having some courts in old, worn-out buildings and then making money for a couple of years”, says Edward Cornell, CEO for Järvsjö padel (PadelDirekt, 2022). Järvsjö padel is a company in northern Sweden that has built an all-wooden padel centre, with the ambition to stay in business for 50 or 100 years. Although this says less about the daily operation and environmental management as in Hede or Höllviken, it declares a long-term goal that might be lacking in the padel boom in Sweden.

However, there is an uncertainty regarding how long the interest in padel will remain. This is further discussed in the conclusion of this chapter. In the next section, we will take a closer look at the environmental aspects of material.

Materials matter – Performances, choices, and hopes

As we saw in section two, the material used in courts and equipment has changed throughout the history of padel. The technologisation of material interacts with the sportification logic and commercialisation of padel and has important environmental sustainability implications. In addition, the players’ purchase of new equipment to improve their performance can be seen as a materialisation of wishes and hopes.

The role of material in sustainability

Environmental sustainability in padel is not limited to the construction of buildings and energy systems or the player’s transportation (dealt with in the previous sections). Material also matters; the amount of carbon dioxide emission from four people playing padel for one hour – when walls, artificial turf, and balls are included – is similar to the amount produced when driving 30 kilometres with an Audi A4 run by petrol (Ring & Wiklund, 2022). This is a simplified material flow analysis, forming part of an LCA (Life cycle analysis), based on several assumptions and results in numbers that might be uncertain. Nonetheless, it shows that material might be an equally important factor to the players’ transportation regarding carbon dioxide, assuming each player drives 4–5 kilometres back and forth to the padel court. In addition to courts and balls, rackets, clothes, shoes, and other equipment also contribute to emissions and are not included in the calculation, which strengthens the argument for the relevance of emphasising material in a sustainability discussion. The aim is to emphasise material that is directly linked to the sport – unlike material used for buildings. Some materials

have additional direct environmental effects besides carbon dioxide, for example, micro-plastic emissions from artificial turf (Fleming et al., 2016).

Importantly, when looking at the organisation of padel, material is highly relevant not only in numbers but also in relation to sportification. The logic of sport – higher, faster, and stronger – applies in padel as well, and technologies of sportification are important at the elite level (Svensson, 2016). The development of new material can be seen as one way to achieve better results. For a discussion of material in relation to sportification and environmental sustainability, see also the chapter by Isgren Karlsson and Backman in this book.

The court – Walls and turf

New materials for courts have been an essential part of the development of padel. The original concrete walls and variety of different surfaces (IPF, 2017) created a game where the bounce of the ball and movement of players were most likely in a wider spectrum than today, when padel is played mainly on standardised artificial turfs with walls of either toughened glass or plexiglass.

Plexiglass walls have made the game safer, slower, and therefore easier for players to perform well. However, these walls have positive and negative environmental implications. On the one hand, concrete is more durable than plexiglass; on the other hand, a padel court in concrete, once built, cannot be moved. In contrast, using plexiglass walls with a steel construction enables flexibility, allowing courts to be dismantled easily. From an environmental perspective, this presents the possibility to move and reuse a padel court in a different place instead of building a new one. For instance, if or when padel interest in one region decreases but increases in other regions, such courts can be moved to meet demand, generating a second-hand market.

Increasing the lifespan of materials is important in minimising environmental impact, as long as the material has no acute ongoing negative environmental effect, because it reduces the need to produce new material. Furthermore, when a material (such as the artificial turf's playing surface) is worn out, recycling is a better option than incineration (Nielsen et al., 2021). However, recycling streams are inadequate, so the turf from most soccer fields is commonly sent for incineration, which generates a lot of CO₂ emissions (ibid); the padel turf is assumed to be treated similarly.

In padel, there are different sorts of artificial turfs with different characteristics. In the World Padel Tour, a curly, more compact, and smooth plastic grass is used, which enables faster play. Recreational courts tend to use upright grass, which has a lower plastic content but a higher volume of sand infill. The type of grass that is best from an environmental perspective is contextual and depends on factors beyond the material itself (where, when, and how it is used and taken care of), but the connection to sportification is relevant for the choice of turf.

As also discussed in the chapter by Backman, Svensson, and Danielski in this book, soccer clubs tend to choose the type of turf that has the “best”

characteristics to play on, regardless of whether the purpose is professional or recreational (de Benardi & Waller, 2022). Suitability and environmental impact are factors of lower importance in the choice. If the choice of padel turf is made in a similar way, sportification does not only affect the elite level of the sport but also has a general effect on padel at a larger scale. Most likely, the choice of turf is also based on several other factors such as price, availability, and delivery time, but turf characteristics could be fundamental for a commercial padel centre that wants to attract many players. Therefore, they cannot be neglected.

Repressurised balls and increased life span

In the early era of padel, tennis balls were used before special padel balls were developed. This can be seen as a specialisation process where the padel game was refined. The differences between the tennis ball and padel ball are small but distinctive in terms of pressure and bounce, making the ball movement in padel slower than in tennis. Technologicalisation might have played a minor role when the padel ball was developed – since it is similar to a tennis ball – but it might now be more important in extending the life span for a padel ball. Different types of repressurisers can be used by players to regain pressure in used padel balls and, therefore, increase the total number of hours the balls can be used. Further, when a ball is considered unusable depends on the context; for instance, old, slow balls can potentially be usable for children or beginners.

Balls are contained in pressurised plastic cans of three or four balls. Unlike the balls – which consist of several different material – some plastic cans are recyclable. Head, a global manufacturer, produces tennis and padel balls in a can that can be re-used multiple times. The company also states that the “performance of the product is paramount ... if tennis players aren’t happy with the product (e.g. balls), they simply won’t accept it, regardless how sustainable it is” (Head, 2021). For many players, this may be true. A few decades ago, unpressurised, hard tennis balls were popular, but these long-lasting balls, which do not have the same feel or touch as pressurised balls, are rarely seen in shops nowadays. Some of the padel balls you can buy today are similar to the balls used on the professional World Tour. One reason for the overall dominance of pressurised balls might be that players at recreational levels are “pickier” these days and want to optimise their game in both performance and enjoyment. Consequently, they seek more knowledge, partly through social media, as we shall see in the next section.

Rackets – Performances or materialised hopes?

A padel racket can be worn out after a year or earlier, depending on care and level of use. Carbon fibre or glass fibre in an outer layer is combined with an inner layer of soft plastic or foam material. Different components make the racket, like the ball, difficult to recycle. Most harm for nature comes from the things we do not use, so it is important that they do not end up like the clothes at bottom of the

wardrobe. The commercialisation of padel equipment is extra evident when we look at the large number of rackets in different combinations of colours, forms, and material.

Padelfamiljen (The Padel Family) is the name of a Swedish Facebook group with almost 20,000 members, and some of their posts concern rackets. The exchange of knowledge and opinions among the group's members is related to how to improve your game and, in the jungle of rackets, find the one that fits you and your padel skills. Voices from the group express a need to try a lot of different models to be able to find the balance between speed and control, based on the individual playing style.

Certainly, to reach a higher level, the player might need to change the racket. At the highest level, every detail must be optimised and modified according to the sportification logic, but at a recreational level, the factors for becoming a better player are many (physique, technique, tactics etc.) and most likely more important than the choice of racket. However, consumer behaviour might be less rational and more connected to hopes and feelings with an attraction to new things. In addition, social media can increase players' desires by sharing reviews, desires, and thoughts of other players. Contradictory or critical voices that tell players that material does not make a substantial difference in making them better players are rare but exist: "Give me a frying pan and I'll beat you all", a man posted in a discussion on Facebook when he seemingly got frustrated at discussion about rackets and improvements of play (Bjurstedt, 2022). This quote effectively punctures something that I would call *materialised hopes* that players also buy when they buy a racket. Thus, the players' relations to their rackets and balls appears to be important for understanding consumer behaviour. Therefore, research is needed for a deeper understanding of this subject.

In summary, sportification, impacted by technologisation and commercialisation, seems to trickle down from the elite to the recreational level and creates a desire for actors at different levels to buy the "best" material or explore the diversity of products on the market.

Conclusions

Sooner or later, another major trend in sport will make a journey from "ritual to record" (Guttmann, 2004), from unstructured play to refined sport, fast or slow. However, the development in terms of increased popularity cannot be taken for granted for any sport, including padel. The question "Anyone for padel?" might be met with more silence in the future. An over-establishment and possible decreased interest in playing padel in Sweden in 2022 have led to bankruptcies among corporate padel organisers. In the coming years, in cities and countries, more padel centres are in danger of being closed. If this occurs, the physical infrastructure – buildings and courts – can in best cases be sold and re-used for other activities; otherwise, they must be torn down. For example, in Lindome, a town with 14,000 residents, the two padel centres are now permanently closed. However, there are

still many courts to choose from, in reasonable driving distance, and padel will likely persevere as an established sport in the region, and in Sweden.

What can we conclude and learn from a fast-emerging sport such as padel, its sportification, and its impact on environmental sustainability? This chapter shows that the central aspect of sportification – the drive to improve performance that interacts with commercialisation – cannot be neglected when studying either owners of padel centres or players. It is important to recognise this logic of modern sport because, while the steps of sportification have changed, its core to perform and develop seems relatively stable. Nevertheless, compared to tennis, padel shows some resistance or at least flexibility in relation to sportification. The self-classification system for player levels (from 1 to 10) is interesting as it can, on the one hand, be seen as a step away from a centralised and systematic categorisation. On the other hand, a standardised system for *all* players, from recreational to elite, makes standardisation in sportification even more difficult to escape from. Who wants to categorise themselves at the very bottom (level 1)? If constantly buying new material or frequently travelling long distances for padel courses/competitions is considered the best solution by the individual to perform better, this categorisation has potential negative environmental implications.

In summary, studying institutionalisation and commercialisation in Swedish padel and discussing motives for different actors reveals that environmental sustainability awareness and work among actors appears to be inadequate. What these actors in these processes may lack is systems and cooperations that make it easier to make good environmental decisions, both in the short- and long-term decisions, and at the same time allow players to perform well and organisations to develop and grow. How can padel actors get more motivated to employ systems for environmental sustainability that can both recognise the force of sportification and, when needed, have the courage to challenge it? This may be the core issue for the future.

Ideally, the next step in sportification would be “greenalisation” – in which actors compete to be the most environmentally friendly. However, this seems utopian when briefly looking at the padel actors in Sweden: organisations in the Swedish sport system, corporate centres, providers of material and equipment, and players. In general, there is a conflict between environmental sustainability and sport development. Nevertheless, exceptions exist, for instance, when technologisation and commercialisation combined forces to develop the repressuriser for padel balls. Why not let these yellow balls – that have received a new life – be guiding stars for the future, not only in padel but also in all sport?

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