CHAPTER 1

The Case of Formula E

Abstract Calls for research and practices with regard to sport management innovation are plenty. In this chapter we introduce why the electric racing world championship Formula E can be a relevant case study for a model of sport management innovation. Besides introducing our fivefold perspective on innovation (organizational, technological, commercial, social and community-based), the basics of Formula E and our approach to theoretical modelling, the chapter explains how the rest of the book is structured.

Keywords Sustainability • Case study • Automotive industry • Sport sociology

INTRODUCTION

Research on the links between sport and innovation is dominated by entrepreneurship, business, marketing and management perspectives (Kosmyrin & Ljunggren, 2021; Ratten, 2021). This is perhaps not very surprising, given that innovation as a scholarly field is considered by many to originate from the work of economist Joseph Schumpeter (1883–1950) (Fagerberg, 2005). Schumpeter defined innovation as a new commodity: a better quality product that involved new methods of production, new markets, new materials and new ways of organizing production (Schumpeter, 1983). Hence, for Schumpeter, innovation was closely tied to business, markets and competitive advantage that would bring financial

gain. In other words, according to Schumpeter's understanding of innovation, it is crucial that any new idea, process or product should be commercialized and introduced to a market. The term 'innovation' has been further developed and transformed since Schumpeter's early conceptualizations. Now, it is an analytical concept that is linked to a wide range of different academic fields, including sociology, political science, organization and leadership studies, welfare and public sector services.

This diversification of theoretical perspectives on innovation has also reached the academic world of sport science. As suggested by Tjønnedal's (2017) early literature review, there are at least five identifiable forms of sport innovation: (1) social, (2) technological, (3) commercial, (4) community-based and (5) organizational. We will return to each of these forms in the upcoming chapters in this book. What makes sport a particularly interesting research area for innovation is that sport organizations need to be continuously renewed in order to keep up with societal changes and at the same time respect tradition. For instance, the International Olympic Committee's (IOC) work to make the Olympic Games more youth oriented by including new Olympic disciplines such as sport climbing in Tokyo 2021, or the trial run for eSports in Paris 2024, are two examples of how sport organizations adapt to changes in society. In this case, changing trends in what types of sports that are popular among youth. However, in sport organizations, 'glory days' and commercial innovations are in many respects each other's adversaries, and here motorsport is no exception (Næss, 2014). In other words, just as with public sector and corporate businesses, in sport organizations there are both barriers and drivers for innovation.

From an innovation perspective, however, tradition and commercialization can in some cases be considered as allies. This perspective has been explored in the context of the World Rally Championship (Næss, 2014, 2017; Næss & Tickell, 2019), but recently another motorsport championship has entered centre stage which may serve as an ever better example of this claim: Formula E (FE)—an all-electric single-seater racing series (Fig. 1.1) resembling Formula 1 in appearance, flair and technological advancement, but with a clear sustainability message.

Fig. 1.1 Sébastien Buemi (23), Alexander Sims (27) and Lucas Di Grassi (66) during the 2019 ABB FIA Formula E Championship in New York City. (Photo: Andrew Henkelmann/Wikipedia, reprinted using Creative Commons license CC BY-SA 4.0)

Hailed in 2018 and 2019 by *Medium* and *TIME Magazine* as driving *electric mobility innovation*,¹ corporations like ABB and government officials in both old and emerging states have been flocking to the championship since it started in 2014. The business magazine *Management Today* cheered for the championship that showed it was *money in sustainable innovation*² at a time when Formula 1 was accused of ‘greenwashing’ (Miller, 2016). Recently, sponsors have thrown caution to the wind, moved from F1 to Formula E and lined up as the ‘greenfluencing’ opportunities have become solid (Næss, 2020). In academia, Skinner et al. (2018), who under the heading *The Future Impact of Culture on Innovation in Sport Enterprises* emphasized that Formula E

is perhaps part of not only the future of sport but also the world. An electric car series represents the defining spirit or mood of this period of history, as shown by the ideas and beliefs of this period, while giving an industry synonymous with environmental waste a chance to attract a different audience. (Skinner et al., 2018, p. 265)

In its current state, Formula E has two aces up its sleeve. Having exclusive rights from Fédération Internationale de l'Automobile (FIA) to stage an electric world championship until 2039—with no electric Formula 1 for a while—and the credential achieved in 2019 of being the only racing championship in the world to receive ISO20121 certification (one of the world's strictest certifications of sustainable events). With an increasingly global reach (see Table 1.1), Formula E thus has a competitive advantage over other motorsports that makes further exploration of this phenomenon relevant.

However, like many other radical innovations in sport, the introduction of Formula E has been met with a mixture of enthusiasm and resistance. To understand what the Formula E has done right (and wrong) in terms of exploiting the alliance between tradition and innovation, we argue that one key lies in management innovation (Birkinshaw et al., 2008; Birkinshaw

Table 1.1 Season and races Formula 2014/2015–2019/2020

<i>Season</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Years	2014–2015	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
Race 1	Beijing	Beijing	Hong Kong	Hong Kong	Ad Diriyah	Ad Diriyah
Race 2	Putrajaya	Putrajaya	Marrakesh	Hong Kong	Marrakesh	Ad Diriyah
Race 3	Punta del Este	Punta del Este	Buenos Aires	Marrakesh	Santiago	Santiago
Race 4	Buenos Aires	Buenos Aires	Mexico City	Santiago	Mexico City	Mexico City
Race 5	Miami	Mexico City	Monte Carlo	Mexico City	Hong Kong	Marrakesh
Race 6	Long beach	Long beach	Berlin	Rome	Rome	<i>Sanya^a</i>
Race 7	Monte Carlo	Paris	Berlin	Paris	Paris	<i>Rome^a</i>
Race 8	Berlin	Berlin	Berlin	Paris	Paris	<i>Paris^a</i>
Race 9	Moscow	London	New York	Berlin	Monte Carlo	<i>Jakarta^a</i>
Race 10	London	London	New York	Zürich	Berlin	<i>New York^a</i>
Race 11	London		Montreal	New York	Bern	<i>London^a</i>
Race 12			Montreal	New York	New York	Berlin
Race 13					New York	Berlin
Race 14						Berlin

^aCancelled due to the COVID-19 pandemic. The replacement races in Berlin were run in August 2020

& Mol, 2006; Damanpour, 2014). In contrast to much research on sport and innovation, it is here defined as ‘*a marked departure from traditional management principles, processes, and practices or a departure from customary organizational forms that significantly alters the way the work of management is performed*’ (Hamel, 2006, p. 3). If successful, Hamel argues, a management innovation creates a long-lasting advantage when it fulfils one or more of three conditions. First, is the innovation based on a novel principle that challenges management orthodoxy? Second, is it systemic, encompassing a range of processes and methods? Third, is it part of an ongoing invention programme, where progress compounds over time? Behind these changes lies a foundational principle: committing to a bigger problem (Hamel, 2006). Whether these criteria are fulfilled can be analysed through an examination of the key stages of management innovation:

The key central phase, invention, is preceded by a combination of dissatisfaction with the status quo (inside the company) and inspiration from others (typically outside the company). Invention is then followed by a process of validation both inside and outside the company. (Birkinshaw & Mol, 2006, p. 85)

Consequently, in the forthcoming chapters we will explore how the story of Formula E from start-up to major business exemplifies the significance of management innovation as a way to facilitate five other forms of innovation in sport: organizational, technological, commercial, social and community-based. Based on data from a variety of multiple secondary sources (sustainability reports from Formula and its stakeholders, media data in English and French, podcasts and newspaper articles, partner publications, social media outputs etc.), we present a model of sport management innovation that aims to describe the relevant conditions for managerially enhancing a sports organization’s commercial product.

THE ENTRY OF FORMULA E INTO THE WORLD OF MOTORSPORTS

The idea of an all-electric racing championship is not alien to car manufacturers. In 1899 Belgian driver and engineer Camille Jenatzy drove flat out in his torpedo-shaped ‘La Jamais Contente’ (‘never satisfied’) in a sparsely populated area to the northwest of Paris and became the first person to reach more than 100 km/h in a car. As a publicity stunt it created a place

for Jenatzy in the growing demand for automobile transportation, even though the electric technology that put him in the books in the first place failed to dominate the car industry in the twentieth century. Three years later, the record was broken by a steam car and shortly after that was arguably demolished by an internal combustion engine-powered car recording 120.83 km/h. Despite Jenatzy earning the nickname of ‘the Red Devil’, due to his racing driver style being ‘characterized by demoniacal fury and stark determination’,³ his efforts to electrify motorsports would soon turn out to be in vain.

The reasons for the disappearance of the electric car were political, technological and cultural. Henry Ford and Thomas Edison teamed up for an electric car project in 1913–1914, but due to technological shortcomings and business disagreements Ford abandoned the project, and Edison’s electricity campaign lost a major ally.⁴ Thanks to successful lobbying from oil companies to transform societies by means of petrol-driven cars (Dennis & Urry, 2009) and an infrastructure that was adapted to the use of cars for leisure purposes (Schipper, 2008), the development and expansion of motorsport followed. The European car industry cashed in on the development by establishing Association Internationale des Automobile Clubs Reconnus (AIACR) in 1904, which from 1945 became the Fédération Internationale de l’Automobile (FIA) and established itself as the global governing body of motorsport and automobility. When Formula 1 launched its first world championship in 1950, and FIA’s World Rally Championship (WRC) followed in 1973, car manufacturers and engineers relied on petrol-powered ingenuity for wins and brand exposure. Formula 1 has now become the epitome of racing and a commercial giant (Stuart, 2018; Sturm, 2014). In 2019, the participating teams spent a total of US\$2.6 billion on their efforts to win the championship (Sylt, 2018).

In the meantime, Formula E appeared in the world of motorsport with its first-ever race in Beijing, China, in 2014. Founded in 2011 by the Spanish duo Enrique Banuelos and Alejandro Agag, a billionaire businessman and former Member of the European Parliament and motorsport entrepreneur, respectively, this was an all-electric championship that in 12–14 venues around the world showcased a combination of sustainability claims, entrepreneurial spirit and commercial savviness that were unique to racing. All the teams used cars that were aerodynamically similar but had minor technological differences, and were transported around the world by Formula E’s logistical partner DHL. The timing of Formula E as

a new sustainable motorsport proved to be perfect, especially as the car world was reeling from the Volkswagen (VW) emissions scandal (also known as ‘Dieselgate’ or ‘Emissionsgate’) in 2015. Then it became known that VW had intentionally programmed turbocharged direct injection (TDI) diesel engines to only activate their emission controls during laboratory emissions testing. This caused the vehicles’ nitrogen oxides (NO_x) output to meet air pollution standards during regulatory testing, but emit up to 40 times more NO_x in real-world driving.

After its success in its opening race in Beijing in 2014, Formula E (FE) went on to publish the book *The eStory: Undertaking the Mobility Challenge* in 2015. A confessional tale penned by DHL’s sustainability director (FE’s logistics partner) and business school lecturer Manoella Wilbaut, it specifies the values and mission of Formula E. The book’s subtitle is *Sustainable Development fueled by Innovation*, with the content divided into three sections (Wilibaut, 2015). The first section is about thinking differently about consumer adaptations and caters to the values of Generation Y, rather than emulating the grandstand culture of Formula 1 or the working class atmosphere of the WRC (Bradley, 2017; Næss, 2014; Næss & Tickell, 2019). The second part concerns technological progress and explains electric mobility solutions that can ramify the automotive industry and urban transportation in depth. The third section covers innovation for sustainable development, where Wilbaut draws on Joseph Schumpeter’s (1983) view of innovation as ‘making ideas work technically and commercially’ (2015, p. 77), as well as on established theoretical innovation categorizations such as ‘radical’ and ‘incremental’ innovations (Fagerberg, 2005). As we will demonstrate in the upcoming chapters, all three forms of innovation can be said to characterize the championship’s development.

Despite these achievements, Formula E has struggled to convince people of its brand proposition. On the one hand, there is the devil within. Over the years car manufacturers have accumulated vast amounts of know-how on electric cars. The championship may therefore become a hindrance in terms of innovative solutions, unless the rulebook keeps track of what is in it for BMW, Jaguar and Porsche, to name but a few. For example, the latter’s Taycan model, its first full-electric car, has a peak charging capacity of 270 kW, one the fastest electric vehicles (EVs) currently sold. However, all 2020 Formula E cars charge at a peak rate of 100 kW. Die-hard motorsport fans, moreover, have mocked the racetracks, which were purpose-built in city areas, and the cars, which were nicknamed ‘hairdryers’ due to the lack of classic racing sounds. Others have ridiculed the fact that drivers

in the early seasons had to change cars during the race because the batteries did not last very long and moaned about the lack of performance. Especially heated was the debate about ‘Fanboost’ (an e-voting service providing your favourite driver with extra power in the race; see Chap. 5).

On the other hand, some critics dismiss Formula E as the all-singing, all-dancing solution. In *Les sports mécaniques, une arme de destruction massive*, French author Paul Ariès (2018) claims that motorsport is a ‘weapon of mass destruction’ that causes thousands of deaths through accidents and pollution, and that Formula E is not changing that one bit. Criticizing how motorsport is aided by powerful political allies such as the former French prime minister, François Fillon, who is currently FIA’s Manufacturer Commission President, Ariès lashes out to French politicians who see Formula E as a saviour, nicknaming it ‘chère à la Maire de Paris’ (‘the Mayor of Paris’s pet’), and concludes that electric cars are simply the last great myth before the ecological disaster hits us all. While Ariès’ book is somewhat hyperbolic, the critique towards Formula E for being hypocritical in its sustainability vision—as the electric teams consist of manufacturers with more than 90 per cent of fossil-fuelled vehicles—is unlikely to go away. Despite Formula E achieving net zero carbon status in 2020, as only one of three companies in the world apart from Google and Microsoft, there is something paradoxical, and almost comical, about electric cars being branded as sustainable motorsport when they are shipped and air transported around the world for sporting events.

THE POSITIONING OF THIS STUDY

Whatever one may think of Formula E’s credibility in terms of sustainability challenges there is nevertheless something fascinating about its path from Agag’s description of it as an ‘idea on a napkin’ (cited from Kingham, 2016) in 2011, to being granted world champion status by FIA in 2020 and a global popular culture phenomenon. In 2014 Agag said: ‘We began as a start-up with lots of ideas and a bit of money because it was always a project with a large dimension and large vision. We did everything that we needed to do in order to attract large sponsors.’⁷⁵ Seven years later, the company list shareholders such as the Swiss private banking group Julius Baer, Discovery Communications and NewWave (the parent of Weibo, China’s answer to Twitter), as well as corporate media giant Liberty Global, which has a 23.9 per cent stake and is also the major shareholder in Formula 1. Although it could be claimed that financial boosts along the

way from new investors have saved Formula E, its success is also due to its organizational adaptivity and partnership strategy.

Of late, the number of research outputs investigating Formula E has therefore rapidly increased. These roughly divide into media explorations (Robeers, 2019; Robeers & Van den Bulck, 2018), human-digital interactions (Finn, 2020; Jarvenpaa & Standaert, 2017), event studies (Sturm, 2019) and studies of Formula E's commercial ramifications (Næss, 2020). However, its innovation history is unexplored territory. Through our exploration, we will demonstrate that sport organizations should not 'treat an innovation as if it were a well-defined, homogenous thing that could be identified as entering the economy at a precise date—or becoming available at a precise point in time' (Kline & Rosenberg, 1986, p. 283). Rather, following Kline and Rosenberg (1986) one step further, the examination focuses on the complex iterative feedback loops between various parts of the organization and its stakeholders. More specifically, Formula E has employed an innovation strategy of drilling holes in a funnel in order to allow ideas to permeate from different places. This metaphor demonstrates the necessity of collaboration and that ideas developed in an open innovation ecosystem 'fuel internal developments and serve as an inspiration for a broader external environment' (Wilbaut, 2015, p. 79). Formula E's approach to innovation has led us to focus on all parts of the championship, instead of just the competition.

Second, further research on management in this sense could be useful to motorsports organizations, fans, leaders and practitioners. Although attention has been given to the life and career of Formula 1 entrepreneur Bernie Ecclestone (Stuart, 2018), as well as the occasional entry into strategy and business (Brawn & Parr, 2016), most research has concentrated on Formula 1 in general. Despite a plethora of innovative features and the work of 'F1 professor' Mark Jenkins (see Jenkins et al., 2016),⁶ the focus has been more on the dramaturgy of the championship than sport innovation in a societal or managerial context. Hence, this work represents an inward focus on Formula 1, rather than an outward focus on large societal issues relating to the sustainability of motorsport. In spite of recurrent warnings about the ecological footprint of motorsport being too big (Dingle, 2009; Hassan & O'Kane, 2011; Mackellar, 2013; Miller, 2016), studies of innovation in motorsport have focused on technological progress related to vehicle performance (Ebaid et al., 2016; Foxall & Johnston, 1991; Jenkins & Floyd, 2001). Even though the technology and performance of racing cars have advanced, the major motoring

championships—even high-tech ones like Formula 1—have hardly changed. In 2007, there was a disagreement between notable motorsport figures about the future of management. On the one hand, Pat Symonds, a former racing engineer and now Formula 1's chief technical officer as well as visiting professor at Cranfield University in the UK, claimed that 'Surprisingly, for such a dynamic sport, there's a remarkable amount of conservatism in management. Globalization presents a huge challenge to those who are conservative' (Henry et al., 2007, p. 147). On the other hand, Jackie Stewart, former Formula 1 world champion and F1 team owner, scoffed at the 'managerialism' that he claimed was diluting the essence of the motorsport drive:

the problem is that you bring in such so called expertise, the further you are from employing and using the passion that is absolutely vital to this business. In my experience, such development has a generally negative effect. (Henry et al., 2007, p. 147)

Instead, Stewart sees 'passion'—the most important ingredient in motorsport—as 'simply not synonymous with corporate management structures' (Henry et al., 2007, p. 147). Based on what is discussed in this book, what we have learned from practical experience of sport management in racing and research on sport innovation and entrepreneurship, it seems likely that in the light of Formula E's development Symonds was closer to the answer than Stewart. The need for innovation outside the pits is equally important as that on the racetrack, and would seem to require an iterative process in which numerous stakeholders are involved in the ecosystem of innovation that a business like Formula E represents.

Third, previous research points to the potential of exploring Formula E in a theoretical context. In terms of selecting Formula E as a case of the importance of management innovation in sport, we argue that it resembles the logic posed by Eisenhardt and Graebner (2007), who claim that 'theoretical sampling simply means that cases are selected because they are particularly suitable for illuminating and extending relationships and logic among constructs' (p. 27). But whereas Eisenhardt and Graebner (2007) favour multiple cases 'because the propositions are more deeply grounded in varied empirical evidence' (2007, p. 27), our study draws on the extended case method outlined by Burawoy (1991). This design is single-case based and can be coupled with other types of explorations than participant observation, which is usually favoured by Burawoy (Ridder, 2017,

p. 292) because it ‘is guided by anomalies that ... demonstrates that the theory is incomplete’ (Ridder, 2017, pp. 291–292). In other words, as Formula E contrasts most of what is done in motorsports generally, ‘theory is aimed to be improved by “turning anomalies into exemplars”’ (Burawoy, 1991, p. 10). This turn requires acknowledging a broad spectrum of perspectives on the given situation and, second, interpreting the micro-macro links in social processes by aggregating those perspectives.

A GUIDE TO THE REST OF THE BOOK

By making use of the sport innovation typology created by Tjønndal (2017) as described above, the discussion in the upcoming chapters is meant to create conceptual associations between conditions for management innovation in sport rather than being tested empirically (Gilson & Goldberg, 2015). In addition to enabling us to carve out propositions that will be used as building blocks in our model, the organization of the chapters has three functions: (1) to develop a cumulative argument of why Formula E provides case-based learning potential for other sporting organizations, (2) to provide the leap from start-up to multibillion industry with a categorical narrative and (3) to respond to a criticism of studies of organizational changes in sport, where although what happened is usually accounted for, the processes of how it happened are ‘rarely addressed in detail’ (Caza, 2000, p. 230).

Based on our analysis, the sport management innovation model takes form as an ecosystem. While ‘ecosystem’ is not a new metaphor for describing the circulation of ideas and practices in sport management innovation in working life or in academia (Kapoor, 2018), it is insufficiently theorized as a framework of analysis. To rectify this shortcoming, we make use of the following definition: ‘a loosely interconnected network of companies and other entities that coevolve capabilities around a shared set of technologies, knowledge, or skills, and work cooperatively and competitively to develop new products and services’ (Nambisan & Baron, 2013, p. 1076). This definition is the point of departure for our exploration of the five types of innovation associated with Formula E. Second, we analyse the innovation history of Formula E as a form of ‘managed ecosystem’ which can be explored in ‘situations where a central orchestrating organization manages ecosystem interactions such that the locus of activity is outside organizational boundaries, while the locus of control remains within the organization’ (Altman et al., 2019, p. 3).

We hasten to underline that much of the empirical data and history of Formula E presented along the way is not new. Rather, our primary contribution is to synthesize opinions, facts and insights in order to strengthen our *model* for sport management innovation. The conclusion offers a number of suggestions for motorsport entrepreneurs in particular and sport entrepreneurs in general who want to replicate Formula E's success, yet avoid getting trapped in its weaknesses.

NOTES

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6. 'Alejandro Agag: In the corridors of power—Part 2', *motorsport.com*, 4 October 2015. Retrieved from <https://www.motorsport.com/formula-e/news/alejandro-agag-in-the-corridors-of-power-part-2/647039/>
6. For more, see <http://www.flprofessor.com/>

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