



Fédération Internationale de l'Automobile

STUDY GUIDE

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Introduction of the Committee

The *Fédération Internationale de l'Automobile* (FIA; English: International Automobile Federation) is an association established on 20 June 1904 to represent the interests of motoring organizations and motor car users. It is the governing body for many auto racing events, including Formula One. In motorsports there are some directives and rules called regulations. FIA's main purpose is to determine regulations for all motorsports. In this committee we have to know the FIA's relationship with Formula One. The FIA determines regulations for Formula 1 and these regulations affect Formula One's future positive (high ratings, low competition, high dose of adrenaline) or negative (low ratings, low competition, falling number of fans, the decline of the sport's reputation around the world). The only reason for the decline in the popularity of Formula One is not only the wrong regulations set by the FIA, but also the budget imbalances of the teams, technological superiority and the dominance of one or a few teams in the season due to these, which reduces the popularity of Formula One quite seriously. For the Formula One's future all delegates should determine effective regulations and strategic future plans in order to increase these sports popularity, competition and ratings all around the world.

Formula One Basics

Teams, Drivers and Race Format:

Formula One is the most prestigious and popular motorsport in the world. This complex and exciting sport consists of 24 grand prix in one season (the numbers may change in future years or be changed by the committee), with a grid of 10 teams and 20 drivers, using cars built by teams spending millions of dollars and driven by drivers of exceptional ability. Each Grand Prix weekend is composed of practice sessions, qualifying sessions, and the main race.

Teams

There are 10 teams in Formula One, each led by a team boss and each taking two cars on the track. For 2024 season the teams are, Mercedes-AMG Petronas F1 Team, Oracle Red Bull Racing, Scuderia Ferrari, McLaren F1 Team, Alpine F1 Team, Aston Martin Aramco Cognizant F1 Team, Haas F1 Team, Williams Racing, Visa Cash App RB Formula One Team, Stake F1 Team Kick Sauber and these teams compete for the championship every season. The teams raise significant funds through sponsorships, prizes and broadcasting rights and design, build and develop cars using the most advanced technology.

Pilots

In Formula 1, there are 20 pilots who have exceptional driving skills, physical fitness and mental endurance. All pilot's education for motorsports started from 3-5 years old with karting. Every team has got 2 main pilots in order to compete for all grand prix.

Race Format

Formula One seasons consist of 24 grand prix (for 2024 season) which are organized all around the world. Every grand prix weekend has got practice sessions, qualifying sessions, and the main race.

Practice Sessions: One grand prix weekend includes 3 practice sessions on Friday and Saturday. These sessions allows pilots to familiarize themselves with the track conditions and fine-tune their cars and allows teams to collect data and develop strategies for the race.

Qualifying Sessions: On Saturday pilots try to do their fastest laps in order to get a head start on the race. Qualifying sessions consist of 3 parts as Q1, Q2 and Q3. In Q1 all pilots go out on the track and try their fastest laps, last 5 grid positions are determined in Q1 by looking at lap times, but the slowest 5 pilots are eliminated in Q3. In Q2 15 pilots go out on the track and try their fastest laps, the slowest 5 pilots are eliminated in Q2 too. Fastest 10 pilots go out on the track and try their fastest laps in Q3 and all grid positions with pole position are determined in Q3. The qualifying rounds not only determine the grid order, but also show the performance of the drivers and teams. This exciting battle is one of the most important and engaging parts of the Formula 1 weekend.

Main Race : Main Race is taking place on Sunday, the main race lasts roughly two hours, covering over 300 kilometers. During the race the drivers have to make pit stop strategies, overtaking attempts and tyre management in order to maintain their position, move up and earn points. The driver who finishes first scores 25 points, second place earns 18 points, and third place receives 15 points.

Technical Regulations

Technical Regulations:

Formula One cars utilize high engineering technologies to reach high speeds on the straights of the track, to stop at corners and to turn corners as quickly as possible. These engineering technologies are subject to strict technical regulations in areas such as aerodynamics, engines and chassis. The aim of these regulations is to ensure that the sport remains fair and competitive, but also to guarantee the safety of cars and drivers.

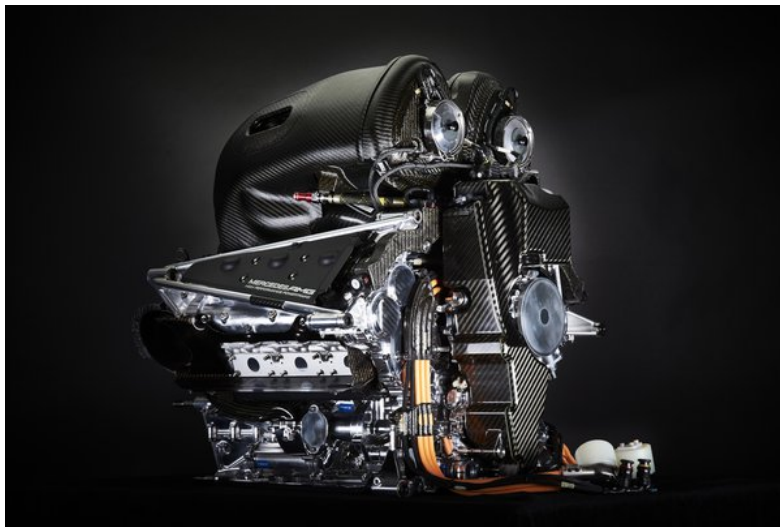
Aerodynamics:

Aerodynamics in Formula One is the branch of engineering that analyzes how the air will pass over the car and, as a result, tries to increase the downforce of the car in certain areas of the track and to reduce the downforce in certain areas in order not to reduce the speed.

Engines:

Formula One engines form the heart of the car and are the part that gives the real power. They are power units designed to deliver high performance and efficiency. In the latest regulations, these engines are 1.6 liter turbocharged hybrid engines. Technical regulations limit the size and weight of the engines, the time the engine is tested and the budget required, as well as certain regulations that determine how much fuel the engines can take and how much exhaust emissions they can produce to achieve the 0 carbon emission target in order to protect global climate change, which is a major goal of the world.

There are 4 engine manufacturers in Formula One today. These are **Ferrari, Mercedes, Renault, Honda (rebranded as Red Bull Powertrains)**



There is extra information about engines for those who are more interested:

Technical Specifications:

Type: 1.6-litre turbocharged hybrid engine

Power: More than 1000 horsepower

Weight: Minimum 150 kilogrammes

Components:

Internal combustion engine

MGU-H (Heat Recycling Unit)

MGU-K (Kinetic Energy Recycling Unit)

Battery

Electronic control unit

Principle of Operation:

Internal Combustion Engine: The engine works like a conventional petrol engine and drives the wheels of the car by turning the crankshaft.

MGU-H: Converts heat from exhaust gasses into electrical energy.

MGU-K: Converts the kinetic energy from the car's wheels into electrical energy during braking.

Battery: Stores the electrical energy generated by MGU-H and MGU-K.

Electronic Control Unit: Coordinates and optimizes all components of the engine and the hybrid system.

Benefits of the Hybrid System:

More Power: The hybrid system provides extra power to the vehicle and allows for faster acceleration and higher top speeds.

Better Fuel Efficiency: The hybrid system saves fuel by recovering energy during braking.

Less Emissions: The hybrid system offers a more environmentally friendly engine option by producing less CO₂ emissions.

Chassis

The chassis forms the skeleton of the Formula 1 car and carries all other components such as the engine, gearbox and suspension. Formula 1 chassis are made of carbon fiber and other extra light and robust materials for high rigidity and durability. Technical regulations determine the size and weight of the chassis and the materials that can be used in their construction.

General Overview of the Agenda Item

Formula 1 has long been known for its realms of technological innovation, intense competitiveness, and driving expertise. However, the sport intrinsically being competitive, drivers have turned to more aggressive ways of racing that raise continuous concerns about safety-for teams, for drivers, and for the spectators. More aggressive driving tactics, such as risky overtaking maneuvers, late braking, blocking, and excessive risk, have increased the possibility of on-track collisions with serious safety implications. These strategies raise important moral and legal questions about driver behavior and the balance of safety and entertainment, although they are widely regarded as a natural part of the sport's competitiveness.

It has also traditionally been a factor in many of the most terrible Formula 1 crashes, such as the 1994 Ayrton Senna disaster and that involving Romain Grosjean in 2020, when safety features including the halo cockpit construction saved lives.

Irresponsible in race tactics belie FIA's commitment to the betterment of safety, which despite improvements in circuit safety, car design and enforcement of race regulations is still dangerous and take lives, drivers have much pressure from teams and sponsors to push the envelope many times at the cost of their own and their rivals safety. The following agenda item will seek methods of reducing the detriments brought about by aggressive racing tactics in Formula 1, without hindering the core competitive nature of the sport, while protecting the well-being and safety of all participants involved.

Historical Events

Date	Event
1950	The first official Formula 1 World Championship race was held at Silverstone, England.
1978	The death of Ronnie Peterson at Monza led to considerable safety discussions related to car crashes and the delays in rescue operations.
1994	The killing of Ayrton Senna during the San Marino Grand Prix saw an in-depth re-evaluation of the auto safety laws.
2001	To improve drivers' safety against severe neck injuries, the FIA introduced the HANS system.
2010	Aggressive on-track incidents involving Lewis Hamilton, in particular, generated debate on race conduct and penalties.
2014	The death of Jules Bianchi at Suzuka highlighted safety concerns with crash barriers and also race control in damp conditions, which would be pursued seriously over the next couple of seasons.
2018	Implementation of the Halo as a mandatory safety feature of the car drastically reduced the occurrence of head injuries among drivers.
2020	At the Bahrain Grand Prix, Romain Grosjean survived a horrible crash because of the Halo among other safety features.

Lack of Competition

For many years, the most prestigious and exciting races of motorsport have been recognised as Formula One. However, in recent years, due to the dominance of certain teams in the sport, competition has decreased and excitement has decreased, which has reduced the number of viewings and popularity.

Although there are many reasons for the decrease in competition in Formula 1, the most important one is budget differences. Bigger budgets have many advantages for teams, they can allocate more resources to develop their cars, employ more experienced staff and carry out more extensive tests. For this reason, teams with small budgets have less chance to compete.

Technical regulations are an important element that effect competition balance. The FIA changes the technical regulations for Formula One at regular intervals. New regulations cause certain teams to dominate, while certain teams fall behind due to their inability to solve the problems brought by the new regulations. The fact that the new regulations impose vehicles that are very stable and will never give engine, gearbox failure prevents pilots from being DNF and ensures that the races are monotonous. When a pilot in the front row unexpectedly DNF, it changes the balance of the race and brings the excitement to the top. Teams take great risks and design their vehicles to go at the limits, which allows the vehicle to perform far above other vehicles, and when they push the limits too much, the vehicle DNF and the ranking changes drastically, especially if there is a safety car or yellow flags.

DNF (did not finish) : DNF means that one car did not finish the race.

Pilot development programmes are another factor affecting the competitive balance. While large teams secure their future by discovering and supporting young talent, smaller teams have limited opportunities to do so. Experienced pilots can significantly influence the team's performance. Larger teams usually have more experienced pilots.

The lack of competition has serious consequences for both the sport itself and the commercial dimension of Formula One.

Declining spectator interest is one of the most obvious consequences of lack of competition. Spectators like uncertainty and surprise in sports competitions. However, if one team is consistently victorious, the races become a kind of script and the spectators become less excited. In the long run, this can have a negative impact on the popularity of the sport.

Sponsors' loss of interest is another consequence of the lack of competition. When sponsors invest in Formula 1, they aim for a high-profile platform for their brand and thus reach a wider audience. However, predictable races can reduce sponsors' return on investment and therefore make sponsorship deals less attractive.

Popularization of Sport

Strategies to reach new markets:

Formula One is not just a race but a way of life and culture for many people. As in the history of other sports, Formula One continues to grow by opening up new markets. This strategy is of great importance both to increase the revenue of the sport and to reach a wider audience.

Formula 1 in new markets includes many strategies for expansion. One of the most important of these is to **support local drivers**. The success of local drivers in new markets makes fans in that country more attached to the sport. For example, Chinese Zhou Guanyu's racing for the Alfa Romeo team has significantly increased interest in Formula 1 in China.

Another important strategy is to **integrate with local cultures**. Making traditional activities in Grand Prix weekend countries is making Formula One an important thing in this country. For example, in the United Arab Emirates, desert safari tours were organised to increase the promotion of the country and rich flavors of Arabic cuisine were served in the race area.

Marketing strategies also play an important role in Formula One's expansion into new markets. Creating marketing campaigns in line with the cultural characteristics and consumer behaviors of countries enables the sport to reach a wider audience. For example, marketing campaigns that emphasize the excitement and competition of Formula 1 are more effective in countries with a developed sports culture, such as the USA.

- Finally, Formula 1 is currently trying to emphasize the theme of sustainability and the importance of climate change, which is alienating a certain group of people from the sport. A significant percentage of the public is becoming unhappy with the sport as a result of the low engine volumes brought on by carbon emissions, the different hybrid systems in use, and the loud exhaust sounds of the cars that once drew attention. This strategy aims to keep the environmentally conscious crowd from taking offense at Formula One, but it actually pushes off existing fans of the sport rather than attracting new

Increasing the Attractiveness of Sport

Formula 1 has been considered the motorsport that has attracted the most attention of the spectators for years. However, this spectator interest has been decreasing in recent years and Formula 1 has resorted to different methods to keep it alive.

Some changes in the race format have significantly increased the attractiveness of the sport. Formats such as sprint races and reverse grid have added a different dimension to long races and improved the viewing pleasure of the spectators. Sprint races are short and fast races before the main race. These races offer both drivers and teams the opportunity to earn additional points and increase the excitement before the main race. The reverse grid, on the other hand, ensures that the fastest driver in the qualifying laps starts at the back of the grid, maintaining uncertainty from the beginning to the end of the race and preparing the ground for unexpected results. Different formats, such as these make the sport more interesting for spectators.

New shooting methods created with the arrival of technological developments significantly increase the attractiveness of Formula 1. Thanks to technologies such as high-resolution cameras, slow-motion replays and virtual reality, spectators have the opportunity to follow the races more closely and see them from different angles.

The interaction of drivers and teams with fans significantly increases the attractiveness of Formula 1. Thanks to the widespread of social media platforms, fans can interact much more with the drivers and teams. In this way, fans have the opportunity to witness more closely the personal lives of the athletes and build a stronger bond with them. More emphasis on the history, achievements and culture of the teams also increases the loyalty of the fans to the teams.

Questions to Ponder

When considering any implications of an aggressive racing mentality on safety in Formula 1, there are key questions that help frame the appropriate approach. To what extent does it take to regulate all aggressive tactics for the sport to remain aggressive yet safe in nature? That is a precarious balance that works to further good driving but tries not to take away from thrilling high-speed auto racing.

Another important question is how driver behavior might be changed to put safety first while preserving the natural competitiveness that motivates many racers. Examples of technological innovation that have significantly increased safety include the Halo device and AI-assisted systems. The question is how technology might further reduce the risks associated with aggressive tactics. Furthermore, how can race stewards better police safety regulations without igniting disputes over fines? It is, therefore, imperative to explore the ways in which mechanisms of enforcement can be equitably created to manage risky behavior transparently.

Finally, Formula 1 might take up some strategies that have been taken by other motorsport disciplines, like Formula E or NASCAR, toward keeping aggression at bay and safety first. All three questions together try to reach the right balance in Formula 1 racing between safety and competitiveness, entwined with technological development.

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