



## F1 and the World – Series Omnibus

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You're listening to the omnibus edition of F1 and the World from Sidepodcast. The mini series was originally released as seven separate episodes over seven consecutive days but is now available as one continuous podcast. Enjoy.

### *Part 1 – Introduction*

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Welcome to a new Sidepodcast mini-series: F1 and the World. This first show is an introduction to the topic and a preview of some of the things we're going to cover.

There's never been a better time to talk about F1 and the effect it has on the world around it. Being eco-friendly is in vogue, and motorsport is an easy target for environmentalists. High performance cars burning up energy to go round in circles doesn't sound like an excusable way to spend a Sunday afternoon. But Formula 1 has its place, and this series is going to investigate the arguments that surround the pinnacle of motorsport – both for and against.

The most well-versed argument I hear is "What is the point?" You can argue that with any sport, football is simply 22 men running around a field kicking a ball. Golf involves silly jumpers and much too much patience. Boxing is merely two people beating the living hell out of each other, and don't even get me started on curling. Formula 1 is no different, it can easily be conceived as a complete waste of time.

But we also need to look at what F1 gives back to society. In the world of motoring, Formula 1 technologies have given plenty to the road car industry to make our automobiles safer, more efficient and easier to use. Max Mosley's current plans aim to improve green technologies for the future both in and outside of the sport. With kinetic energy recovery systems, longer life components and the introduction of bio fuels, there are plenty of things to look at for the long term.

Honda has brought environmental concerns to many F1 fans attention with the introduction of their Earth Car last year, and the accompanying website encouraging eco-friendly pledges and charity donations. They raised almost £100,000 in donations in 2007, and intend to continue the initiative as a long term plan. They won an award for their efforts at the Green Awards in 2007 – the top prize aptly known as the Grand Prix. Perhaps other teams may start to take an interest in this kind of activity, perhaps not.

Some of the countries recently added to the calendar have developing economies that Formula 1 can only serve to enhance. Worldwide coverage can mean a boost to the economy especially terms of an increase in tourism, higher levels of employment, and much needed focus and attention for the country.

With Formula 1's primary audience based in Europe, the newest track on the calendar, Singapore, is intended to be a night race. Imagine the audacity, lighting up an entire 5km street circuit for an entire weekend and then annually for the next five years. It can't all be bad though, can it? We'll look at that in more detail later in the series.

I'm not going to try and convince you that Formula 1 is good for the environment. All I want to do is explore what things are being done to help the environment, and what things clearly aren't. Then I can maybe convince you that it is not as bad as you think it is. A modest aim, but I know it won't be easy.

Tomorrow we'll start with F1 and the Economy. Join me then.

### *Part 2 – The Economy*

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Welcome to Sidepodcast, this is a mini series dedicated to looking at how F1 fits into the world around it. Today we're going to take a closer look at F1 and the Economy.

Spending a few millions on a racetrack may seem like a barmy idea if you're a government minister with a limited budget. But the phrase "speculate to accumulate" has never been more true, and if Formula 1 comes to town it can generate quite a few billion in extra revenue for the tourism industry.

Formula 1 is a truly global event. It's watched in over 200 countries worldwide, and 50,000 plus fans come to see races firsthand. Some of those are from the host country, while many others are visitors, tourists or holiday makers. A new circuit, or redevelopment of an existing one, often includes new hotels, leisure facilities and business parks – and this creates all manner of employment opportunities.

In Dubai, the Formula 1 track has also sparked a sideline in theme parks. A Formula 1 shaped theme park. Think of the revenue, the creation of jobs, and the publicity this will bring to the area. I've never had a desire to go to Dubai, but an F1 theme park? Now you're talking.

In Turkey, the relatively new circuit brought investment opportunities to the Asian side of the country, an area that had mostly been residential until the F1 circus rolled in to town. Now they can compete with the European side for business and investment opportunities – something they had been unable to do previously.

India are a nation getting more and more involved in Formula 1, and this is getting themselves as a country more and more publicity. Force India F1 are set to take over the back of the grid, Vijay Mallya is bound to bring in some fresh, new Indian drivers, and it won't be long before India itself is included on the calendar.

It's not all about money though. F1 can be used as a strategic marketing platform as well. Later in the series we will look closer at Honda's initiative to try and get car enthusiasts excited about green ideas, whether it be as simple as turning off a light bulb when it's not in use, or as big as choosing to buy a hybrid car. Although there is no doubt Honda would be investing in green technologies without the F1 influence, it's fair to say that a much wider audience has been reached thanks to the popularity of F1.

Although Tasmania has no Formula 1 interests itself, it does host the Mark Webber Challenge. This is an initiative created by Mark, involving sports personalities orienteering through the beautiful Tasmanian countryside, making the most of their skills and the tools nature gives them, and raising money at the same time. While this is a worthy project in its own right, it's conceivable that it wouldn't have as much global coverage if there wasn't a Formula 1 driver involved. I don't think I would know about it, but because of F1, I have heard about it, magazines devote articles to the subject and Tasmania and the Mark Webber Challenge get the publicity they need and deserve. For a charity based event, this can only be a good thing.

So, what can we conclude from this? Whilst Formula 1 is one of the most expensive sports in the world, where the concept of money can become a little bit skewed by the number of billions involved, it is not completely wasted on the world surrounding the sport. Industry, economy and charity can all benefit from F1 coming to town.

That's all for today, tomorrow we'll be taking a look at what the FIA are doing to benefit the world.

### *Part 3 – The FIA*

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Welcome to F1 and the World, the mini-series from Sidepodcast examining the effect that F1 has on the world around it, from environmental to economical issues. Today we're looking at what the FIA are doing to make F1 that little bit more friendly.



The FIA, Formula 1's governing body, have been carbon neutral since 1997. What does this actually mean though? They work closely with universities to calculate the precise amount of carbon produced by the sport. This includes running the cars over test and practice sessions, and covers all race weekends. It also includes the transportation of personnel across the globe to attend races. Once calculated, the FIA work with reforestation projects in Mexico, and are therefore carbon neutral. As of last year, the annual figure to be traded off was 20,000 tonnes of carbon, not a small figure by anyone's standards.

Being carbon neutral isn't everything. Motorsport uses up plenty of fuel. Just recently the structure of qualifying sessions saw the cars topped up with fuel, then emptied over 20 minutes to get the best lap out of the lightest car. The fuel would then be reintroduced to the cars. A complete and utter waste of time and resources. The FIA have taken this on board and the qualifying session has been adjusted accordingly, to remove the element of fuel burning.

Also, motorsports in general are turning towards the idea of biofuels. Formula 1 is testing the water this year, with teams having to run a fuel comprising at least 5.75% biofuel. Presumably there is more to come in this direction in the future.

The FIA's constant desire to save money is also an indirect benefit to the planet. Long life components are being introduced in many areas of the car, and a standard ECU is in place across the grid for 2008. Although the main priority is to stop teams spending so much money, this also means they will not be using up so many resources, there will be less raw materials used up in producing endless components and this essentially saves energy.

However, the most important thing the FIA do is run the FIA Foundation, an organisation that campaigns for road safety all around the world. The Foundation researches issues regarding public safety, the impact of cars on the environment, the future in sustainable transport and of course safety within motorsport as well. They issue grants and fund initiatives across the globe and get involved with activities such as reducing the number of road related deaths in Africa, and raising awareness of crash structures and safety ratings in the UK. Those are just two examples of the many projects the FIA Foundation gets involved with, and it's all working towards reducing the impact on the environment and on society of both road and sports cars.

There you go, advert over with, it may sound like an awful lot of corporate speak but what it does show us is that the FIA aren't burying their heads in the sand. They know what impact Formula 1 and their other motorsport series are having on the world and the environment and they are actively looking at ways to minimise any detrimental effects. There's not much more you could ask from your governing body.

Except maybe for more overtaking.

That's all for this episode of F1 and the World. I hope you're enjoying this series so far, don't forget to get in touch via the website at Sidepodcast.com, via Facebook – just search for Sidepodcast, or via voicemail. The number you need is 0121 28 87225. On the next show we'll be looking at what efforts the teams are making in our quest to save the world.

#### *Part 4 – Teams*

Welcome to F1 and the World, the latest mini series from Sidepodcast. We're investigating all the different ways that F1 affects the world around it, for better or for worse. Today we're looking at the effort the teams are making to reduce their impact on the environment.

The FIA aren't the only people making an effort to reduce the sport's impact on the world. Individual teams have invested in some processes to help as well. Naturally, some do more than others, with Honda being the most obvious and prime example.



The Earth Dreams initiative began in 2007, as myearthdream. At the start of the season, fans were encouraged to pledge a simple eco-friendly promise – to turn off lights when they're not needed, or shut off the water when brushing their teeth. A donation to the site meant you could also get your name on the car, although it was only small and hardly visible at all. The money raised throughout the season was added to by a donation from Honda, and then split amongst environment charities. This year, the idea is evolving, the title has been reduced to simply Earth Dreams. They haven't announced specific plans as of yet, but they have confirmed that the idea is a long term initiative.

At the Honda factory, they're implementing small but worthwhile changes to try and help out as well – they've introduced a cycling to work scheme, if you share a car you get a free lunch. They saved 6% of electricity simply by asking the designers to switch off their computer monitors at night. They're also investigating the possibility of power by wind turbine.

Meanwhile, McLaren's version of a factory is more like a state of the art piece of architecture. Set in 96 acres of a managed nature reserve called McLaren Park, the Technology Centre is a stunning building. It's not just good to look at though, it also uses the land to its best advantage. The manmade lake is actually a giant heat exchanger, collecting rain water, filtering it through the reed beds, running it through the cooling system within the factory, and then refreshing the lake with a mini waterfall of used water. Excess rainfall goes to an overflow lake and nearby rivers.

The ecological thinking behind the Technology Centre started way back when the plans were developed, the building is orientated so that it picks up the most amount of light but the least amount of heat from the sun. As ever, other schemes are in place. A Green Transport Plan features restrictions on car parking and a shuttle bus to and from the factory.

The Renault factory also went through an overhaul of its procedures not so long ago, attempting to make its whole process carbon neutral. They brought in an onsite sewage pumping station that brought about an 800% saving in energy use. They also recover as much waste metal as possible, and in reducing their waste, also reduced lorry traffic by half.

Although we've only looked at three examples here, it does appear that everyone within Formula 1 is making the effort to at least appreciate the effect they're having on the earth, and trying to do something to reduce that footprint. It's certainly more than a lot of sports and teams out there.

That's all about the environment for now. Tomorrow we'll be looking at the technology involved in F1 and whether it can *only* be used in F1.

### *Part 5 – Technology*

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Welcome to F1 and the World, the latest mini series from Sidepodcast looking at F1 and its place in society. We've already covered the effect that sport has on the economy and the planet, but what relevance does it hold for technology? Today we will investigate.

A lot of arguments for F1 centre around the fact that the useful technology that is created trackside can then be passed on to the cars we drive today. I think I've already alluded to that in this mini series already. But if we're being perfectly honest, some of today's road cars are actually more advanced than an F1 car, especially when it comes to technology. F1 is all about speed and aerodynamics, whereas road cars introduce parking sensors and integrated iPods. It's not really the same thing.



So what technology is F1 helping? Let's start with Force India. Vijay Mallya is the head honcho of Kingfisher Airlines and the owner of the newest F1 team on the grid. It's no coincidence that aerospace and F1 are often seen in the same sentence together. Force India have alliances with EADS and Airbus to share resources, data, and technologies. In 2004, Renault F1 and Boeing formed a research partnership to quote: "collaborate on a number of advanced design and manufacturing technologies." McLaren have partnered with BAE Systems for years.

Actually, this last example is interesting. BAE Systems provide defence solutions for the armed forces, in land, sea and air. They decided the motorsport industry had the technology and the insight to become a good partner. A spokesman from BAE Systems said: "Car racing technology looks promising for refuelling military vehicles in dusty conditions." The Bahrain Grand Prix could be considered somewhat dusty, don't you think? They're also interested in high reliability components and low power consumption, both of which F1 is developing for the ever changing rules.

It works both ways. Qinetiq, a defence and security company, have partnered with Williams for three years, since it was BMW Williams, in fact. They share technology both ways, with Qinetiq able to give back to Williams. They have stronger and more heat-resistant materials that have been used on their military aircraft. They have advanced GPS technology to help determine the exact position of the car on the track – accurate to 2.5cm. And they have cutting edge predictive software to help in design and research when developing the car.

What we have here, is top defence and aerospace companies giving their best technologies to F1 to keep the sport at the pinnacle of motorsport. In return, these companies, Qinetiq, BAE Systems, Boeing, they get demonstrations of their technology in practice, get data from the track, and see what works and what doesn't. Because when it comes to the Ministry of Defence, you want them to have confidence in the technology they have.

So, the next time someone tries to tell you that F1 is wasteful and unnecessary, just argue back. The army need somewhere to test out their new tank's GPS, you don't want them getting lost out in the desert somewhere. Why not make a sport out of it as well?

That wraps up today's F1 and the World. Join me tomorrow when we will gaze into our crystal balls and look at where F1 is headed in the future.

### *Part 6 – The Future*

This is the sixth episode in the Sidepodcast mini series F1 and the World. We've already looked at how F1 is affecting the world around it and what the relevant people are trying to do about it. Now it's time to gaze ahead to the future and think about what can still be done.

It's easy to see how Formula 1 has helped in the past. It was fundamental to a lot of safety improvements and innovations that transferred over to road car technologies. It's harder to see how Formula 1 is helping right now in this decade, but that looks set to change.

The FIA are planning many new rules and regulations that will introduce some energy saving techniques to racing. Things like the Kinetic Energy Recovery System, the idea of reusing the energy that would normally be lost from braking, are pushing the sport forward. The amount of investment in researching and developing these ideas would be nowhere near as high if it was left to the road car industry themselves. Things happen a lot quicker in Formula 1, as well. Whereas a car manufacturer could think about developing a technology over a couple of years, F1 teams need the updates tomorrow, today, or preferably yesterday, so they can remain one step ahead. The competition ensures that development is always moving forward and is always at a rapid pace.

So, this KERS system. It's designed to extract the wasted energy from the braking system and recycle it. Thoughts at the moment are that the energy would go towards an overtaking button – a burst of speed allowing for more



excitement out on the track. This technology would translate well to road cars, although probably without the overtaking button. That would make driving on the motorway more exciting, of course.

Biofuel technology becomes more of an issue. Research is still ongoing over how to get the best from it. Some series have already made the switch and are committed to the idea. Others, such as F1, are more reserved. Obviously, using less oil and more biofuel is a good thing, but there are problems with this system. Although biofuels are renewable, the land used to grow the crops for the process is being taken away from land normally used to grow food. Developing nations can earn more from fuel than food, and thus shortages begin to occur. It's something that needs looking at in much further detail by the FIA, not only to invest in a renewable fuel, but a renewable source that is not depriving countries of other sustainable crops.

I mentioned briefly in the FIA Efforts show, the constant desire from the FIA to cut costs. This results in long life component rules. In 2005, a rule was brought in to force that saw teams only using one set of tyres in a race. It was retracted, because it left the drivers in a pretty dangerous situation by the time they'd completed race distance. But this just led to more ideas. In 2006, the rules changed and decreed an engine had to last two races, or else the teams faced a penalty. This year sees the introduction of four-race gearboxes. Long life components mean less parts are produced, which obviously saves time and money, but also raw materials, resources, and most importantly, energy.

The final proposal I want to mention is the budget caps idea. Up until now, teams can spend as much money as they have on research and development. They can test out any number of ideas and chase down as many dead ends as they like. With budget capping, this will be limited. Even if teams continued to push forward into new technologies, there would be a limit on the time and energy used in this process. Of course, on the flip side, this could delay progress on developments that will actually be beneficial to the sport and the world around it. The full impact of the budget caps proposal is still an unknown quantity, and both sides of the coin have yet to be investigated fully.

That's a look to the future of F1 and how it may or may not affect road technologies. We've covered pretty much everything now, from the economy to the environment and all that's in between, so all that's left to do is to make our conclusions. Join me on the next show when we evaluate what we've discovered.

## *Part 7 – Conclusion*

This is F1 and the World, a mini series brought to you by Sidepodcast. We've been looking at how Formula 1 fits into the world around it, from the environmental effects to the economical benefits. Now we have covered all our topics, it's time to rustle up a quick conclusion to our findings.

There's no denying that Formula is not the healthiest sport on the planet for the planet. It does use up resources and energy, but what we've learned in these six shows so far, will hopefully go some way to defending it.

The FIA are fully aware of the impact F1 has on the world around it and are doing their best to reduce any negative side effects of the sport. They already have projects on the go, both for the environment and for road safety, and where they can see gaps, they are looking to the future with new technologies and extensive research.

Individual team efforts vary across the grid, with Honda appearing to make the most effort. Their Earth Dreams initiative has raised large amounts for green charities and looks set to continue. However, other teams do their bit, reducing waste and looking for any way to tighten up their procedures and make things that little bit better.

Whilst Formula 1 is both a sport and big business, it also has relevance to the road car industry as well. Many manufacturing giants are involved in F1 and the research and development they do for the track can be transferred into the cars that you and I are driving every day. Of course we're not going to be driving around at hundreds of



miles an hour, or at least I hope not, but anything that can make our road experience a little bit easier is good in my book.

We also covered the potential revenue brought to a country when Formula 1 signs on the dotted line. The increased exposure for a country can be unprecedented and is difficult to achieve by any other means. It's all about the added tourism which means a boom to the economy, development escalates, unemployment levels go down.

F1 is an easy target but there are other sports that shouldn't get away lightly. Think of football. How many games are on a weekend? And how many fans are travelling to those games in a car? That's needless fuel consumed travelling up and down the motorway. F1 is a global sport, and therefore the majority of fans are watching on their TVs, at home, not using a single ounce of petrol. This isn't about passing the buck, but it's too simplistic to pick on a sport simply because it uses up fuel. We need to take into account the bigger picture.

Personally, I would defend Formula 1 against any environmentalist.

I hope you've enjoyed this series looking at the effect F1 has on the world. I may not have convinced you that F1 is the greenest sport on the planet, but then I wasn't trying to. Hopefully, I've just brought some of the benefits of the sport to your attention and you can watch the races with a new set of facts behind you.

If you have any comments, feedback, anything you think I may have missed, please let me know via the usual methods. Leave a voicemail on 0121 28 87225, visit the Facebook group – just search for Sidepodcast, or send me an email [christine@sidepodcast.com](mailto:christine@sidepodcast.com).

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