ENTERPRISE PORTFOLIO

www.eclipse-gb.com/links

Eclipse

CONTENTS

1 | TEAM IDENTITY
2 | MARKETING
3 | MARKETING
4 | MARKETING
5 | SPONSORSHIP
6 | SPONSORSHIP
7 | DIGITAL MEDIA
8 | DIGITAL MEDIA
9 | SUSTAINABILITY
10 | SUSTAINABILITY



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1 | TEAM IDENTITY

TEAM IDENTITY | What is it?

Team identity is the **beliefs and visible behaviors** of the individuals within it.

ECLIPSE | Ethos

'Eclipse' represents the sun and the moon, the idea of coming together as one, a symbol for exponential growth at a time of rapid change. Eclipse followed their ethos of **'Innovative Engineering for the Future'**, by striving to **give back to the community and to inspire the younger generation** of STEM enthusiasts. To ensure Eclipse made a difference, the team honoured this in all that was completed. Eclipse also **created the sustainability strategy 'Eclipse Earth'**.



JAVIER
TEAM PRINCIPAL

EVIE
ENTERPRISE MANAGER

TOM
ENGINEERING MANAGER

Figure 1.1 - The Team

OPERATIVE STYLE

Eclipse are a team who strive for success, not just competitively, but personally and socially too which helps grab every opportunity that presents itself to the team and ensures they are motivated to take on any challenge that is faced.

There are three motivators to reach the ethos;

- **Be Innovative**
- **Be Sustainable | Socially, Environmentally and Economically**
- **Be Collaborative**

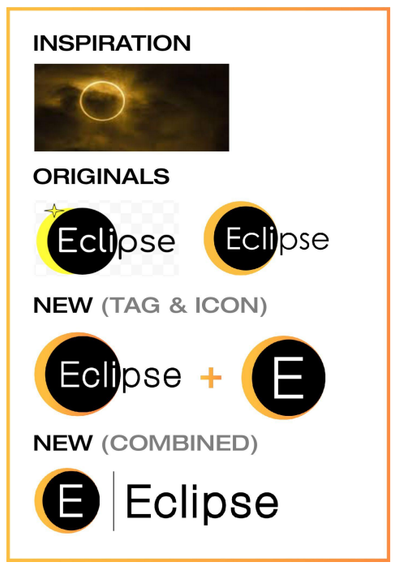
LOGO DEVELOPMENT

The Eclipse logo is designed to be **simple, clear, memorable and iconic**, originating from the co-joining of the sun and moon. For the 2023 season rebrand, a gradient was applied across the logo to add a contemporary yet professional feel, while keeping consistent to the brand identity with typefaces and fonts.

The Eclipse logo has two variants. The 'tag-line' which is an expansion of the principal logo and an 'icon', which is used on social media to make the most of the space given by these platforms. The 'tag-line' is used where a rectangular box logo fits more appropriately into a given space, such as a banner and in tables.

Eclipse's logos were **updated, following feedback from judges comments** during the previous World Finals at Silverstone.

Figure 1.2 - Logo Development



BRANDING GUIDELINE BOOKLET

To ensure continuity and consistency across Eclipse's marketing campaign, the team collaboratively created a **branding guidelines booklet**. This helped create a 'trademark' style for Eclipse. All team members were given a copy of the guidelines booklet to reference when working on project elements.

COLOURS AND FONT

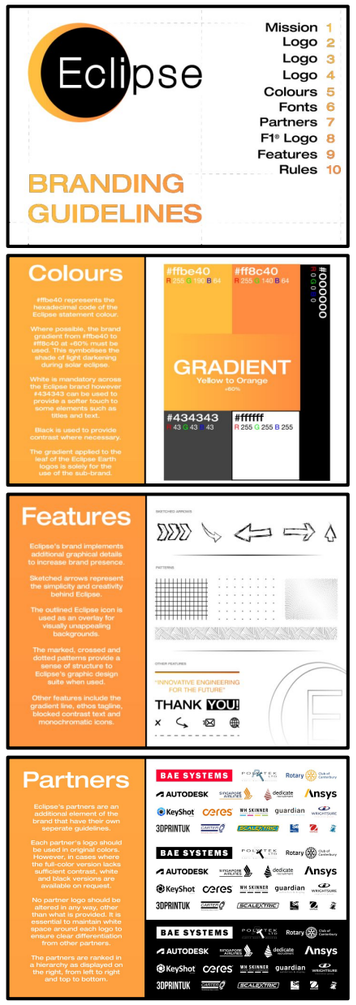
Eclipse keep stricity to one colour scheme and typeface across all work produced by the team. This is identified in the team's **brand guidelines booklet** to ensure consistency and continuity across the brand.

The typeface chosen was Helvetica Neue which, through research, was found to be one of the most popular sans serif typefaces in the world due to its **clean, confident appearance** that is both legible, presentable and structured.

Yellow (#ffbe40) is the **statement colour**, symbolising the natural eclipse of the moon and sun. The grey (#434343) provides a softer touch to some elements, such as in titles and long paragraphs.

With a distinct and recognisable theme, it is designed to **stand out from other teams** and to reinforce all **marketing**.

Figure 1.3 - Branding guideline booklet example pages



ORGANISATIONAL STYLE

Eclipse elected to adopt an organisation style for all work output for F1® in Schools, with **6 design rules**:

1. White text on gradients.
2. Justified left margin.
3. Bleed applied on borders.
4. High contrast.
5. Excess white space for bodies of text to breath.
6. Be creative.

GRAPHICAL STYLE

Effective graphic design allows a brand to be **easily recognisable, trustworthy and impactful.** Eclipse achieved this by ensuring the principles covered are applied for marketing campaigns and project elements.

Continuity across all work is a critical element to ensure quality. Developing skills in Adobe Illustrator helped reach higher graphic standards. Google Drive was used simultaneously for ease of collaboration when producing portfolios.

ENSURING BRAND IDENTITY | Externally

To ensure Eclipse's brand was adhered to when outsourcing to external businesses, the **branding guidelines booklet was sent in communications**. For example, in **Figure 1.4** when working with Presca Sportswear to design the uniforms which they found very useful.

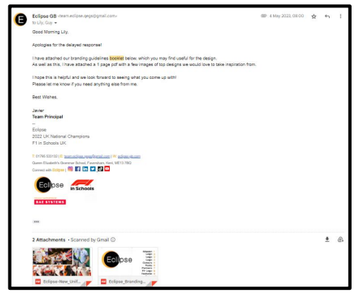


Figure 1.4

BRAND FEATURES

To maintain consistency, identity across all project elements is key. For the 2023 World Final, the quality of marketing strategies was essential to raising brand recognition.

UNIFORM

An essential aim of the team has been to **market partners effectively** when attending any events. Having a team attire allows Eclipse to do this, with strategic placement of partner logos, including all colours of the brand and the F1® logos.

Respect for the brand and partners, has also led to an ethos of, **"all on or all off"**, ensuring that if one person is wearing a jacket or cap, all the team do.

To ensure the team's ethos was followed, Eclipse worked with Presca Sportswear to produce **eco-friendly attire manufactured from recycled bottles**.

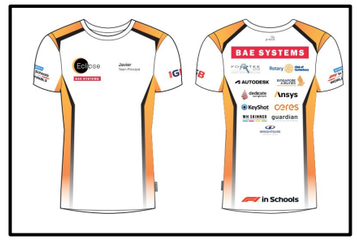


Figure 1.5 - Team T-Shirts

THE CAR

The 'ECLIPSIS-E7' car, has always been white, to highlight partners and allow their logos to be visible, maximising their placement and the team's desired Return on Investment (ROI). **The car includes all colours of the brand** to ensure it is recognisable and consistent.



Figure 1.6 - Car

PIT DISPLAY

Underlined with **multiple award-winning pit display honours**, Eclipse are always complimented for their unique and bold approach. Partners are promoted alongside Eclipse's cars, eco-friendly merchandise, the team ethos branding and portfolios. Team identity has been highlighted on the pit display, using the branding guidelines.



Figure 1.7 - Pit Display

BRAND FEATURES

To ensure Eclipse's brand was always advertised consistently, the team created things such as banners for social media and email signatures. This helped people easily recognise that the item belonged to Eclipse further aiding brand creation.

TEAM IDENTITY SUMMARY

- Eclipse's uniforms are simplistic and include all colours of the brand. The team has worked with Presca Sportswear to produce eco-friendly clothing.
- Eclipse follow their ethos 'Innovative Engineering for the Future' by striving to better their community by inspiring the next generation of STEM enthusiasts.
- Eclipse keep stricity to branding guidelines. This ensures consistency and continuity across the brand and helps to distinguish from other teams.

MARKETING

A marketing strategy is the 'game plan' to **strategically strengthen an identity and promote the beliefs and intentions** of the team.

Eclipse have focused on marketing as a fundamental building block to reaching full potential as a team. After 4 years developing the marketing plan, **the team have gained worldwide recognition and significant following**. Not only with social media strategies but by saying 'yes', to as many opportunities and regularly participating in events and helping at promotional activities.

MARKETING GOALS

Below (**Figure 2.1**), outlines Eclipse's marketing goals, which are the primary foundation to all marketing campaigns.

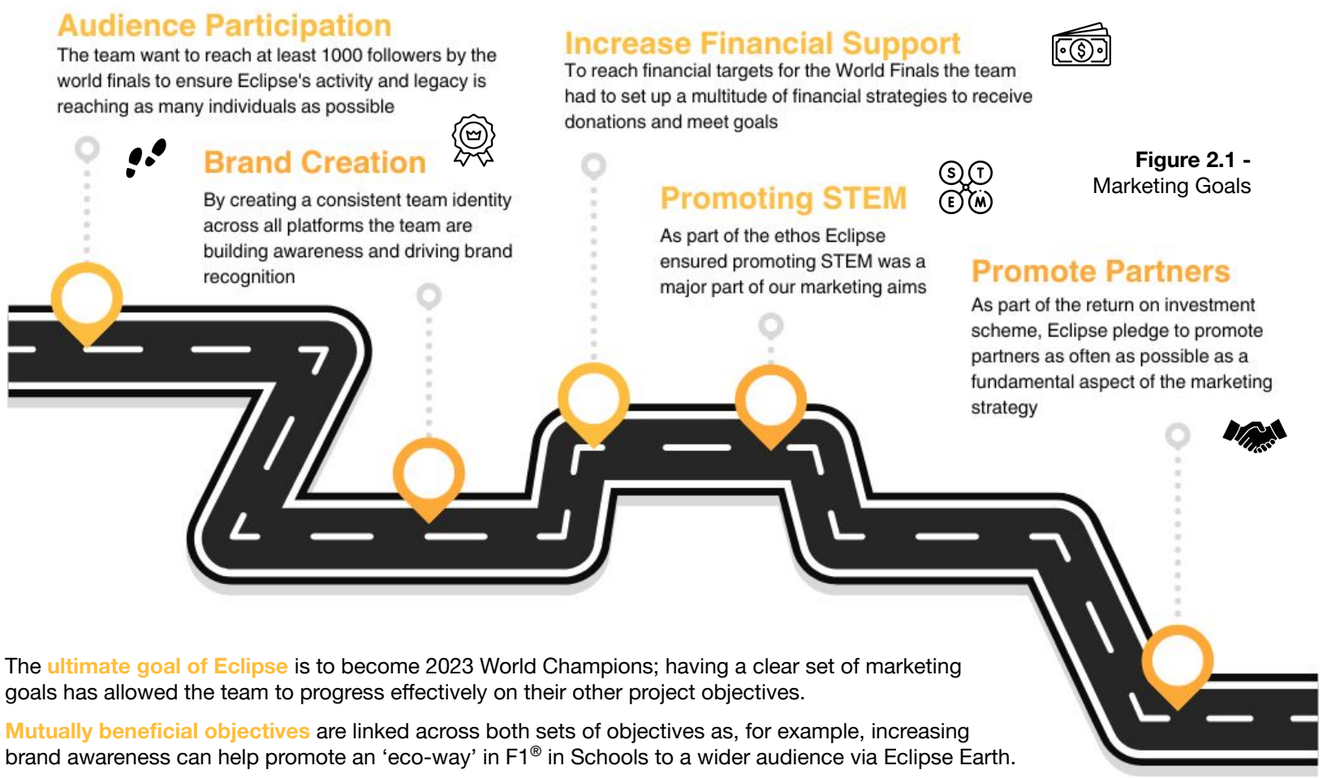


Figure 2.1 - Marketing Goals

The **ultimate goal of Eclipse** is to become 2023 World Champions; having a clear set of marketing goals has allowed the team to progress effectively on their other project objectives.

Mutually beneficial objectives are linked across both sets of objectives as, for example, increasing brand awareness can help promote an 'eco-way' in F1® in Schools to a wider audience via Eclipse Earth.

PLANNING KPI's | Key Performance Indicators

Eclipse used key performance indicators to highlight platforms that must be focused on the most in order to achieve marketing goals.

Eclipse understood that their **biggest reach** would be on **Instagram**. According to recent research on the age demographics of Instagram users by reputable online sources, nearly one-third (32%) of all users fall within the 18 to 24 age group, making it the range with the largest number of Instagrammers. You can see on the graph (**Figure 2.2**) that it is among the **most used platforms of 15-24 year olds**, much greater than that of Facebook or X (a.k.a Twitter). Although the team understood the need to have a foot in these platforms to reach the partners and followers, the team **would primarily use Instagram as a 'hub'**.

According to stats from Instagram, it is the top **platform for building relationships**. Additionally, Instagram has a primary advantage over other social media platforms with its **visual nature** and is the best platform to showcase content.

Eclipse tried to push out content on all popularly used social media to achieve their marketing goals.

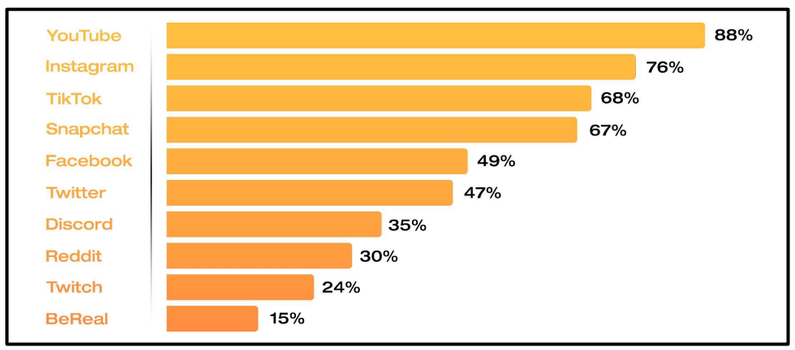


Figure 2.2 - Social Media Demographic of Most Used Platforms (15-24 Age Group)

STRATEGY DELIVERY

From looking at KPI's, the team understood that having a prominent digital footprint was far more effective that any physical efforts. Below breaks down the levels of importance given to marketing methods.

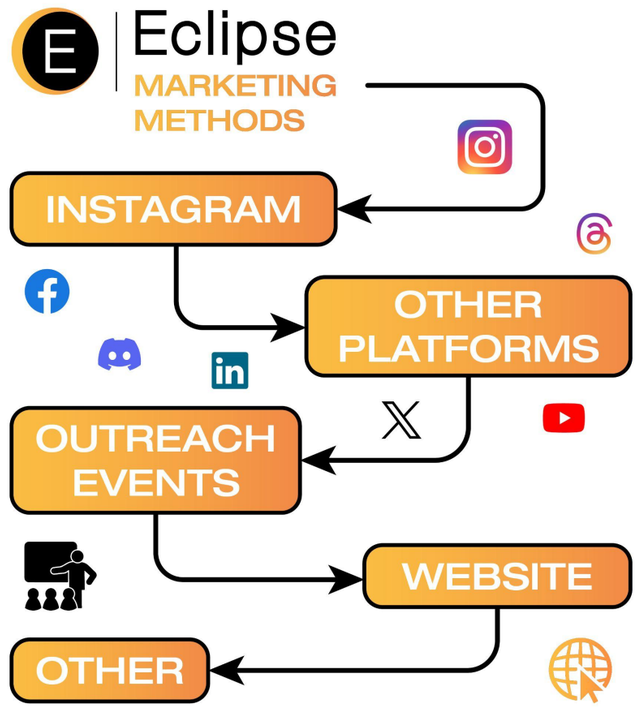
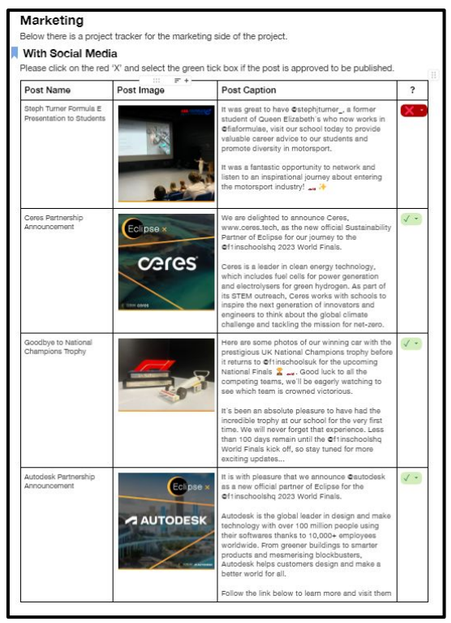


Figure 2.3 - Marketing methods

SOCIAL MEDIA


Marketing

Below there is a project tracker for the marketing side of the project.

With Social Media

Please click on the red 'X' and select the green tick box if the post is approved to be published.

Post Name	Post Image	Post Caption	?
Steph Turner Formula E Presentation to Students		It was great to have @stephjturner_, a former student of Queen Elizabeth s who now works in @fiaformulae, visit our school today to provide valuable career advice to our students and promote diversity in motorsport. It was a fantastic opportunity to network and listen to an inspirational journey about entering the motorsport industry!	
Ceres Partnership Announcement		We are delighted to announce Ceres, www.ceres.tech, as the new official Sustainability Partner of Eclipse for our journey to the @f1inschoolshq 2023 World Finals. Ceres is a leader in clean energy technology, which includes fuel cells for power generation and electrolysers for green hydrogen. As part of its STEM outreach, Ceres works with schools to inspire the next generation of innovators and engineers to think about the global climate challenge and tackling the mission for net-zero.	
Goodbye to National Champions Trophy		Here are some photos of our winning car with the prestigious UK National Champions trophy before it returns to @f1inschoolsuk for the upcoming National Finals. Good luck to all the competing teams, we'll be eagerly watching to see which team is crowned victorious. It's been an absolute pleasure to have had the incredible trophy at our school for the very first time. We will never forget that experience. Less than 100 days remain until the @f1inschoolshq World Finals kick off, so stay tuned for more exciting updates...	
Autodesk Partnership Announcement		It is with pleasure that we announce @autodesk as a new official partner of Eclipse for the @f1inschoolshq 2023 World Finals. Autodesk is the global leader in design and make technology with over 100 million people using their softwares thanks to 10,000+ employees worldwide. From greener buildings to smarter products and mesmerising blockbusters, Autodesk helps customers design and make a better world for all. Follow the link below to learn more and visit them	

Social media was the most important marketing method.

Posts were tracked using an approval based system to ensure regular posts. Data from post performance was tracked on a spreadsheet to continuously improve outreach online.

All posts were released directly to Instagram and then automatically posted to all other platforms as they required less monitoring.

Figure 2.4 - Social Media Strategy Reference

MARKETING METHODS

The 4 C's of marketing are **Customer, Cost, Convenience, and Communication**. These 4 C's determine whether a company is likely to succeed or fail in the long run and Eclipse tried to instill this mantra into their marketing strategy.

In order to reach marketing goals a list was formed of potential strategies.

Increasing Audience Participation
- Social Media
- QR Codes
- Business cards
- Networking events

Brand Creation
- Team Identity
- Ethos
- Branding booklets
- 4 C's

Increasing Financial Support
- Networking Events
- Go Fund Me
- Raffle
- Sponsorship Prospectus'

Promoting Sponsors and STEM
- Social media
- Branding
- Primary STEM project
- Events

Eclipse attempted all of these strategies, often with great success. Any step back helped make positive improvements.

The following pages go through Eclipse's efforts to meet their marketing goals.

MARKETING | 1
- After 4 years developing a marketing plan, Eclipse gained worldwide recognition online.
- Eclipse ensure they said yes to as many opportunities, regularly taking part in promotional events.
- Having a clear set of marketing objectives and a social media plan, allowed the team to progress effectively.
- Well thought through planning led to Eclipse having a clear vision of how to deliver an effective marketing strategy.
- Key strategies include; increasing audience participation, brand creation, increasing financial support and promoting partners.

INCREASING AUDIENCE PARTICIPATION

Increasing audience participation is a crucial goal, for anyone wanting to market themselves as it **expands your outreach and platform potential**.

SOCIAL MEDIA

Social media was vital, by posting regularly and consistently the team were able to **increase participation across all platforms**. In line with the 4Cs, **continuity is fundamental.** Posts followed the brandling guidelines and Illustrator templates. Eclipse ensured they posted any updates immediately and actively respond to comments to keep viewer engagement active.

Some examples, **Figure 3.1,** showcase efforts including interactive question stickers and posts from social media pages. One target this season was to reach **1000 instagram followers** which the team achieved..

Being an active user on social media also helped **increase audience participation**, including posting photos where the team had been tagged or commenting on others posts. This increased exposure of accounts in order to 'pinch' followers from the target audience.

LINKTREE

Using a link tree made it far easier to **increase audience participation** as people were able to choose the platform of their choice and flick between the team's different accounts.

QR CODES

Eclipse used **QR code stickers around local landmarks to increase audience participation** in the local area whereby people were able to scan the code and connect directly to the Linktree account.

NETWORKING EVENTS

Eclipse have been fortunate to attend many networking events which were fundamental in increasing audience participation as they were able to **engage with the target audience face to face**. On the pit display at competition events the positioned RFID tags which linked to linktree, and other engaging sites.

The team had the opportunity to promote F1® in Schools at the BETT show and a primary school day at Silverstone, host the Rotary Club of Canterbury's Pentangular event and run a team-building day for BAE Systems. All of these events helped promote the team, STEM and F1® in Schools to the people engaged with. There were a number of online networking events such as Off the Track and Rotary Radio, which had a global audience.

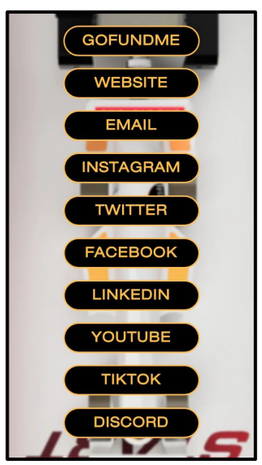
362,000+

11 PLATFORMS

SOCIAL MEDIA IMPRESSIONS SINCE 2019



Figure 3.1 - Example posts



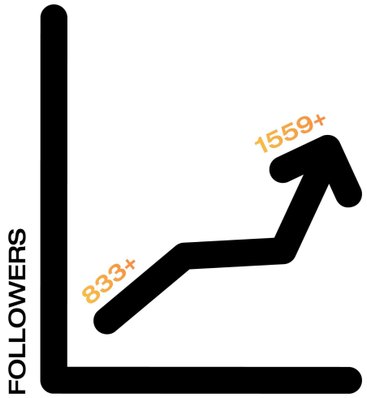


Figure 3.2 - Media growth



Figure 3.5 - Linktree



Figure 3.4 - Media campaigns



Figure 3.6 - Networking events



Figure 3.5 - QR code sticker

BRAND CREATION

Brand creation is the overarching sub goal of marketing. It is about respecting the 4 C's and making yourself **recognisable, unique and memorable.**

BRANDING BOOKLET

As mentioned in the team identity section, **the branding booklet was vital to maintaining consistency** on deliverables, posts, uniform and merchandise. Eclipse have become recognisable as the 'yellow and white team'. Below evidences team identity further.







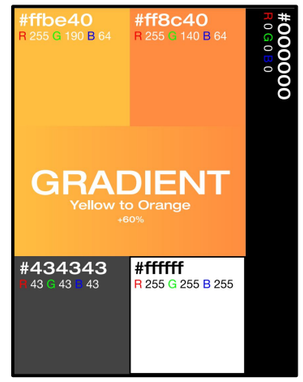


Figure 3.8 - Colour Chart

ETHOS

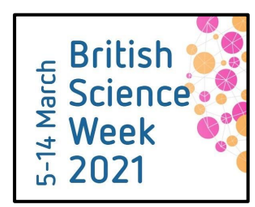
Eclipse introduced an ethos in their first season competing in F1® in Schools. This has helped partners and the wider community understand what the team stands for, **strengthening team identity**.

For Eclipse, "Innovative Engineering for the Future" outlines the goal to **give back to the community** and **inspire the younger generation** of Science, Technology, Engineering and Maths (STEM) enthusiasts whilst improving personal attributes by **thinking creatively, sustainability and innovatively,** expanding networks and leaving a mark behind, all whilst proceeding through stages of the competition.

"INNOVATIVE ENGINEERING FOR THE FUTURE"

Eclipse's business and marketing objectives directly correlate with their ethos. They are considered at each decision point throughout the campaign and to remind the team of why they compete in F1® in Schools .







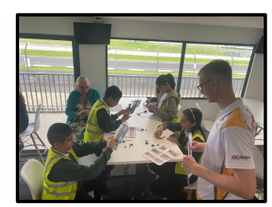


Figure 3.8 - Images of Eclipse conducting their ethos of engaging others

ECO PHILOSOPHIES

Eclipse Earth is a sustainability strategy set up by Eclipse to ensure they are a fully environmentally, socially and economically sustainable F1® in Schools team for the 2023 World Finals.

The target audience of Eclipse Earth is the entire active F1® in Schools community and the wider community. Eclipse wants to promote sustainability to the entire competition and attempt to inspire teams to consider this as an important element of the project. Teams are encouraged to make a pledge and Eclipse also ensure all marketing material is as green as possible. **Business cards were printed on wildseed paper to reduce wastage and encourage people** to 'do their bit'.

MARKETING | 2

- Marketing is the game plan to strengthen identity and promote team beliefs/ethos
- Eclipse increased audience participation through various strategies such as networking events
- Eclipse achieved their goal of brand creation by respecting the 4C's and abiding by the branding guidelines
- Eclipse carried out ethos values such as promoting STEM

INCREASING FINANCIAL SUPPORT

Marketing is important to increase financial support, it is integral to maintaining a team's position in the competition. By using online platforms and events Eclipse were able to promote the team with efforts to **increase financial revenue.**

SPONSORSHIP PROSPECTUS

Eclipse strived to embed professionalism in all elements. To reignite sponsorship agreements a new sponsorship prospectus was **sent to all existing partners with the aim to continue support** for the upcoming World Finals. Additionally there was a **personalised document** and letter sent to all potential new partners.



Figure 4.1 - Examples of pages in the prospectus

NETWORKING EVENTS

Eclipse have received invitations to a number of corporate events where they have had the opportunity to meet with new people/organisations and gain sponsors. An example of this was promoting F1® in Schools at the BETT show, London, where many companies **gave Eclipse business cards** to offer technical or financial support. **Eclipse gained a gold partner, Autodesk**, at this event. With the coaching from Marcus Orlovsky, the Rotary Club, BAE systems and as well as giving numerous sponsor presentations; the team have **become very confident with public speaking** which makes it much easier to **engage with the public** and increase awareness about the team.

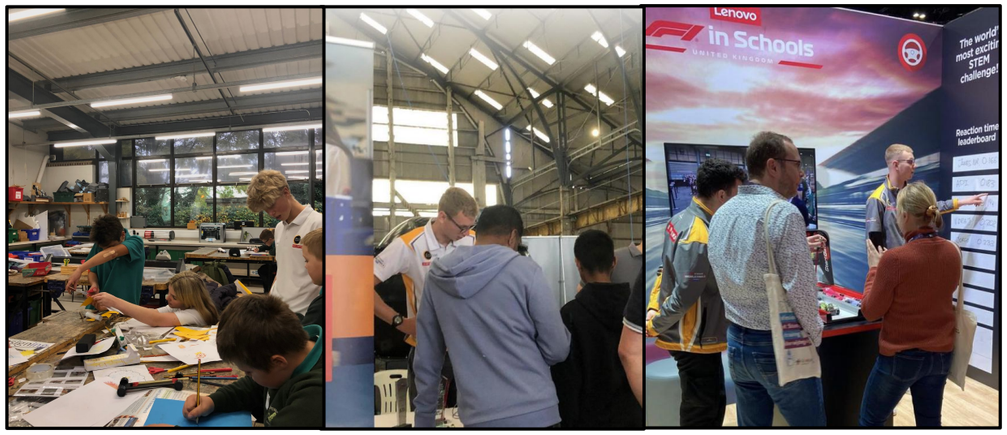


Figure 4.2 - Networking events

GOFUNDME

This season Eclipse created a GoFundMe account to gain financial support. Ensuring it complied with Eclipse's branding guidelines it as promoted across all the team's sites, it worked as it generated 12% of all revenue raised at £1,779.



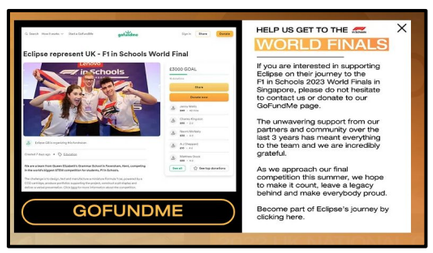


Figure 4.3 - GoFundMe fundraiser page (left) & The website welcome page (right)

PROMOTING PARTNERS AND STEM

SOCIAL MEDIA

As part of the team's social responsibility pledge, Eclipse Earth, they promote STEM in the community. The team **produced weekly blogs and vlogs for the F1® in Schools a 'Team's Eye View'** encouraging new teams into the competition the covering a journey from Regionals to Nationals.

Eclipse collaborated with Greek, Indian, Australian, Brazilian, English, Scottish and Welsh F1® in Schools teams to produce podcasts and collaborative videos to promote STEM and F1® in Schools. As a team **Eclipse mentored Saudi teams** as F1® in Schools is expanding as an event there. Eclipse produced a podcast episode for 'Off The Track', an organisation that provides coverage of F1® in Schools around the world, to help new teams learn how to work with sponsors and market themselves in the competition. Javier was recently appointed Head of Media for 'Off The Track'.

Very active on social media, Eclipse have always promoted and helped **push opportunities** such as activities during **British Science Week** and initiatives for **Women in STEM**. Since 2019 Eclipse have **surpassed over 360,000 impressions online**. Social media platforms are used to promote partners at any opportunity.

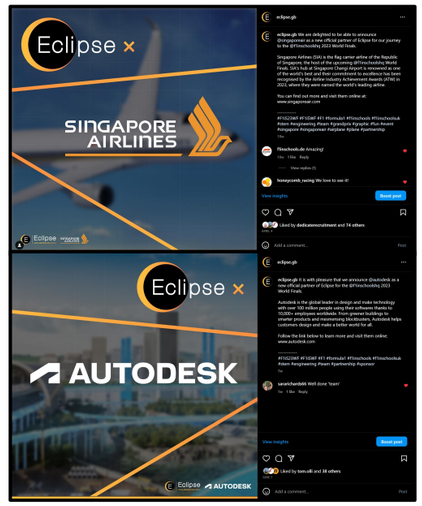


Figure 4.4 - Example Posts

BRANDED @ EVENTS

As part of Eclipse's return on investment, the team always aim to promote sponsors wherever possible, whether at events or in promotional activities. Below shows some images of how the team have achieved this, more in-depth information is later in this portfolio.



Figure 4.5.1 - Uniform Branding



Figure 4.5.2 - Business Card branding



Figure 4.5.3 - Car branding





Figure 4.5.4 - Pit Display Branding

PRIMARY STEM PROJECT

Eclipse's pledge to "give back" was an attractive unique selling point (USP) for existing and potential partners. The team agreed that **15% of all investment** was from partners would be used for the wider community with the biggest expenditure for this pledge being the Primary STEM Project. The team was able to deliver an entertaining STEM day for 15 schools and over 1000 students for local primary schools. Due to the success of this project, the **team were invited by F1® in Schools to run workshops at Silverstone** to engage young people into the competition.



Figure 4.6 - Team visiting Silverstone to run a primary session alongside F1® in Schools



Figure 4.7 - Primary STEM days at Queen Elizabeth's Grammar School



MARKETING | 3

- As part of Eclipse's ethos they pledged to give 15% of all funds generated back to the community to promote STEM.
- To reignite sponsorship agreements and generate new partners for the World Finals, a sponsorship prospectus was sent out.
- Numerous students across the globe via networking events online and in person have been inspired inspire younger generations in STEM and to take part in F1® in Schools.

SPONSORSHIP | What is it?

As an independent team, Eclipse had to ensure **they raised £15,000 for the World Finals.** Sponsors not only provide **financial support,** but also, **manufacturing aid and professional advice.** They are vital for success in the competition.

SPONSORSHIP PROSPECTUS

For the 2023 World Finals Eclipse created a **sponsorship prospectus** as part of their marketing campaign. It was used to gain further support from existing sponsors and to encourage new sponsorship deals. **Figure 5.1** shows some pages from the prospectus.

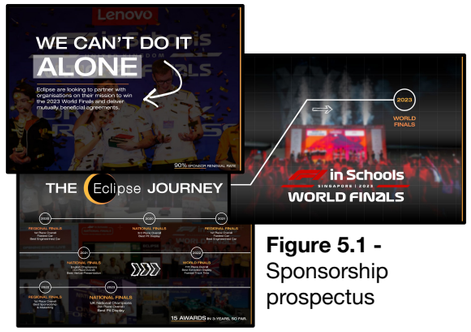


Figure 5.1 - Sponsorship prospectus

For new sponsors we established a 3 stage plan, **Figure 5.2**, to acquire new partners.

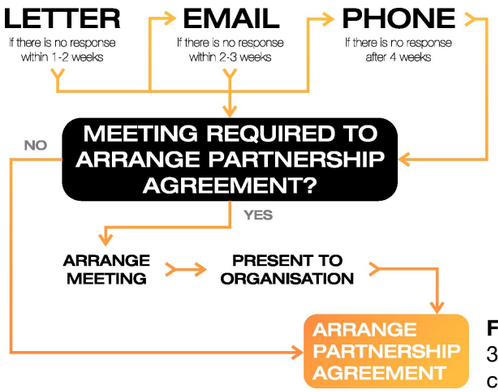


Figure 5.2 - 3 stage contact plan

SPONSORSHIP TOTALS

Figure 5.3, shows the total amount raised by Eclipse since 2019 and the amount raised for the 2023 World Finals:

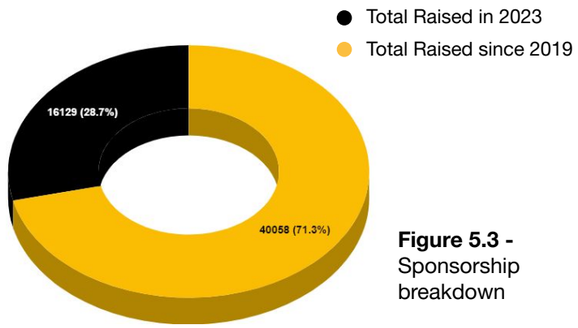


Figure 5.3 - Sponsorship breakdown

TYPE OF SPONSORSHIP

Early in the project, Eclipse identified they could not **complete all deliverables alone.** Increase in their manufacturing resources and improvements in all other areas were beneficial subfactors of having **stakeholders and partners.** The team had access to a high quality workshop internally, however there are areas of the project where quality of work can be improved. Therefore, to be a successful team, Eclipse needed to **accumulate partnerships in 3 areas**:

1. **Financial** - to **increase purchasing power** for materials, travel expenses and entry fees
2. **Services** - to **improve the quality** of physical deliverables such as team uniforms, the pit display and cars
3. **Advisory** - to help achieve the **project scope** to the best of Eclipse's ability

FINANCIAL AID

As a result of Eclipse's professionalism, friendly approach and efforts the team managed to be **successful gaining sponsors and reaching financial targets**. These generated funds did not come without cost to Eclipse, a lot of time and effort was given for the ROI schemes as seen in this portfolio.

RETURN ON INVESTMENT (ROI) SCHEME

Figure 5.5 represents the **different levels of sponsorship and the potential Return On Investment** received by Eclipse's partners. Levels of sponsorship could be financial or 'aid' equivalent in value to the amount listed. The pyramid was shown to all potential sponsors to show what they would receive by becoming a partner of the team.

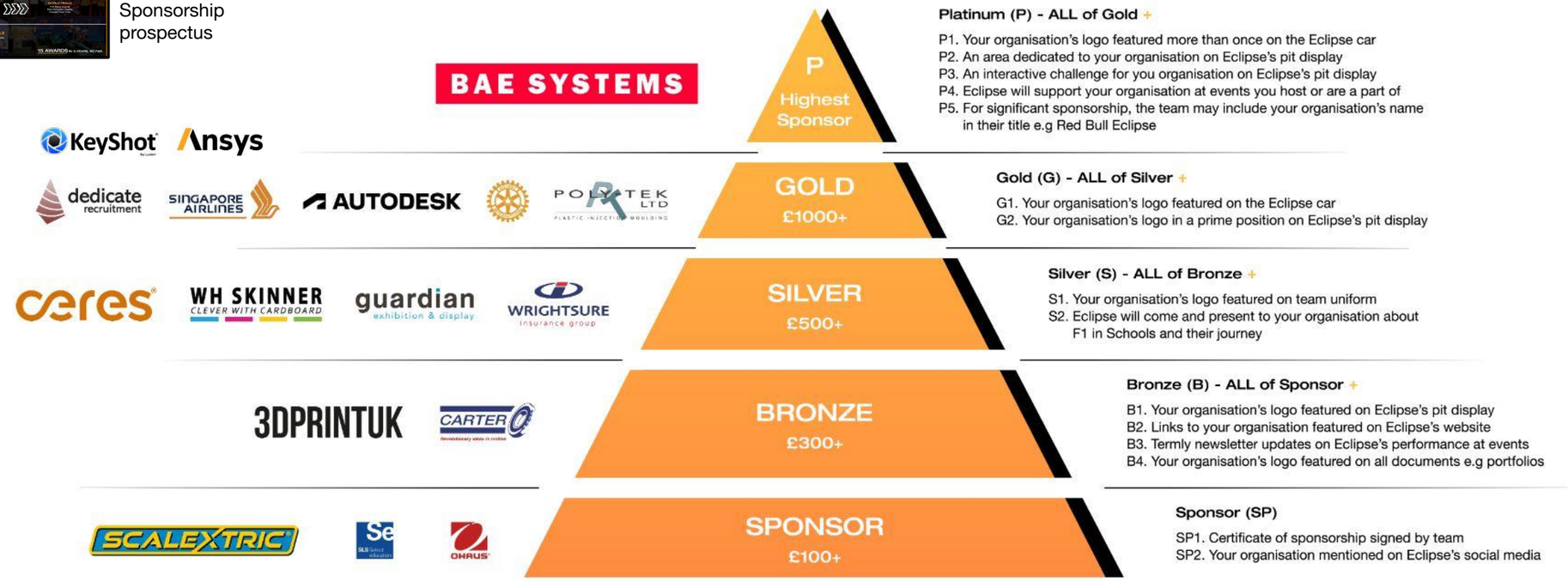


Figure 5.5 - ROI scheme

ADVICE

Evie, the team's Enterprise Manager, worked with Dan Palmer (Head of Communications) at BAE Systems, Rochester, to create a **sponsorship plan** and advise Eclipse how to provide the **best Return on Investment (ROI)** to partners. This proved successful as once implemented, the team picked up major financial sponsors who increased their investment incrementally.. **Sponsorship is a mutually beneficial relationship** that promotes a company in order to increase sales. Many of the smaller sponsors supported us to promote their business and for that purpose we set up our Return on Investment Pyramid.

INVESTMENT

Eclipse discovered that the fundamental reason businesses sponsor teams like theirs was the acknowledgement of Eclipse's **corporate social responsibility (CSR)**, **Figure 5.4**. By supporting the team's ethos of developing **STEM in the community** it emphasises the potential sponsors' image for nurturing young people into the industry. This in turn helps business' **increase their own credibility, improve public image and build prestige.** By Eclipse pledging 15% of generated funds back into the community, as well as Eclipse Earth, it encouraged sponsors to join in with the worthwhile campaign for the community.

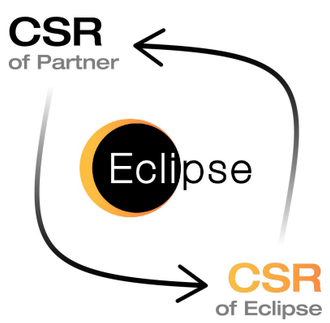


Figure 5.4 - corporate social responsibility

PARTNER CONTINUATION

Eclipse endeavor to keep in **communication with all partners.** Thankfully, the team have never lost a partner, only gaining them. This will partly be down to the team's success but also their great communication. An example of great communication is the sending of monthly newsletters to all sponsors and keeping in touch via social media. In celebration of the continued support Eclipse arranged a **celebration evening before departing for the World Finals**

SPONSORSHIP | 1

- Eclipse gave back to partners and developed responsibilities to ensure sustainability
- Many smaller partners supported the team to promote their business and for that purpose a Return on Investment (ROI) pyramid was created.

COMMUNICATING WITH PARTNERS

Dan Palmer, BAE Systems Rochester, encouraged Eclipse to **form bonds with partners** by meeting in person wherever possible. Although this was very difficult during the COVID-19 pandemic, Eclipse still met all partners face-to-face, if possible.



Figure 6.1 - Meeting Rotary

The team presented to partners to give them updates on progress and educate them on the team need to do in the competition, for example with Ceres power, BAE Systems and the Rotary Club, **Figure 6.1.**

RETURN ON INVESTMENT (ROI)

As part of the ROI scheme Eclipse ensured all large investors were **well branded across deliverables** and on all marketing materials. Below, is an overview of how sponsors would be positioned dependant on their level of investment.



Figure 6.2 - ROI on deliverables

CASE STUDY | SINGAPORE AIRLINES

Singapore Airlines, title sponsor of the Singapore Grand Prix, partnered with Eclipse for the World Finals. By working with the number 1 airline and a multinational corporation, **the partnership gained substantial recognition amongst the community.**

This included the discount of flights by £1,000 and the free-of-charge transport of the pit display, equivalent value of £1,500. Below displays how Eclipse carried out ROI for them:



Figure 6.3 - Singapore Airlines

RETURN ON INVESTMENT (ROI)

Eclipse gave back in other ways with unique initiatives, outlined below:

CERTIFICATE OF PARTNERSHIP

Upon completion of a partnership agreement, Eclipse would **send a certificate, Figure 6.4, to the new partner** to thank them. If the company were local, they would be delivered by hand and if overseas such as KeyShot, sent as a .pdf through email with hyperlinks embedded in the certificate. As well as this form of instant ROI, **a thank you letter** would be sent and a post thanking them across all **Eclipse's social media platforms.**

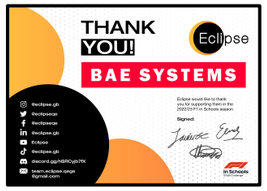


Figure 6.4 - Certificate

NEWSLETTERS & REGULAR UPDATES

Investors were keen to know about Eclipse's progress and forming a close bond with sponsors was fundamental for the partnerships longevity. The team ensured **regular update meetings** were held with sponsors. **Figure 6.5** shows an example of the **termly newsletters sent to our sponsors** to keep them engaged with our progress. This is another **marketing material** in which Eclipse have **fulfilled a business objective**.

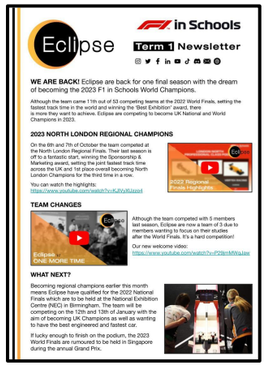


Figure 6.5 - Newsletter

PRIMARY STEM PROJECT

One of the most attractive selling points to sponsors was the primary STEM project, **Figure 6.6**. This project provided Eclipse with an opportunity to directly fulfill their business objective of **encouraging future generations** into STEM. **15% of investment** was dedicated towards projects such as the primary STEM day, strengthening the team's ROI scheme and **encouraging further support.** It has been a major success amongst Eclipse's local community, inspiring over 1000 students.



Figure 6.6 - Primary STEM project





ECLIPSE EARTH

Just like Formula 1, Eclipse wanted to push to be **carbon negative and inspire others to follow.** The team launched the campaign, Eclipse Earth. Collaborating with Ceres, **Figure 6.7**, to develop the programme, the team ensured it was professionally driven and correctly implemented to increase the impact. **Over 115 users on Instagram pledged to cut their personal emissions.**

This was an **attractive selling point for sponsors** as it meant they were investing sustainably not only into Eclipse first hand, but second hand through community efforts.

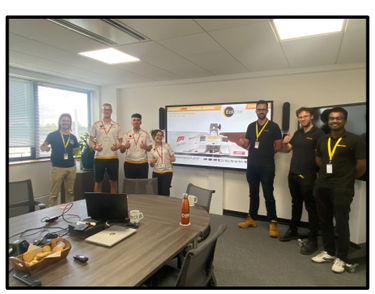


Figure 6.7 - Ceres meeting with Eclipse

RETURN ON INVESTMENT (ROI) | Creative Activities

Eclipse ran a number of **creative activities linked to their Return on Investment (ROI)** scheme. Initially when contacting sponsors the team would arrange a 'meet the team' call with a presentation giving an overview of the team and what opportunities there could be for their company. Many partners then asked Eclipse to be involved in a number of events to entertain guests, create team building activities, promote the company or promote STEM.

BAE SYSTEMS EVENTS

Eclipse promoted BAE Systems, F1® in Schools and STEM at the Medway Gaming Festival twice. In 2022 the team presented at the BAE Systems community Investment Showcase, a 'Connect Day'. **Employees at BAE Systems, Rochester, competed in the team's Primary STEM competition organised and managed by Eclipse**. The team again visited to update employees and meet with Sean Holbrook for car developments. As a Platinum Partner, BAE Systems provided financial and manufacturing aid along with industry expertise; checking over our portfolios and supporting with implementing project management strategies.



Figure 6.8

VALUE & TYPES OF SPONSORSHIP

The table below outlines the detail of sponsorship from each of Eclipse's partners.

PARTNERS	TYPE	DETAILS
BAE SYSTEMS	PLATINUM (Financial, Services & Advisory)	£5,000.00 (Manufacturing Aid, Advice and Financial Support)
Poly-Tek	GOLD (Financial)	£2,000.00 (Financial Support)
Rotary Club of Canterbury	GOLD (Financial & Advisory)	£1,500.00 (Advice and Financial Support)
Autodesk	GOLD (Financial & Services)	£1,500.00 (Financial Support)
Singapore Airlines	GOLD (Financial & Services)	£1,000.00 (Financial Support and In-Kind Partnership)
Dedicate Recruitment	GOLD (Financial)	£1,000.00 (Financial Support)
Ansys	GOLD (Services)	Software (In-Kind Partnership)
KeyShot	GOLD (Services)	Software (In-Kind Partnership)
Faversham Municipal Charities	GOLD (Financial)	£1,000.00 (Financial Support)
Ceres	SILVER (Financial & Advisory)	£500.00 (Advice and Financial Support)
WH Skinner	SILVER (Services)	Manufacturing (In-Kind Partnership - Pit Display)
Guardian Displays	SILVER (Services)	Manufacturing (In-Kind Partnership - Pit Display)
Wrightsure Insurance	SILVER (Financial)	£500.00 (Financial Support)
3DPRINTUK	BRONZE (Services)	Manufacturing (In-Kind Partnership - Car)
Carter Bearings	BRONZE (Services)	Manufacturing (In-Kind Partnership - Car)
Scalextric	SPONSOR (Services)	£150.00 (In-Kind and Financial Support)
OHAUS	BRONZE (Services)	Manufacturing (In-Kind Partnership - Car)
SLS Select Education	BRONZE (Financial)	£150.00 (Financial Support)

Figure 6.9 - Sponsorship detail

ROTARY PENTANGULAR EVENT

Eclipse hosted the Rotary Club of Canterbury's **pentangular event for over 100 visitors from across Europe** during the summer of 2022. The team managed to make numerous contacts, promote F1® in Schools, the team's community projects and make the team's Gold Partner, the Rotary Club of Canterbury, look good as a charitable organisation in the local community.

SPONSORSHIP | 2

- Eclipse Earth, just like Formula 1's NET-ZERO by 2030 campaign, wants to push to be carbon negative and inspire others to follow.
- Eclipse created a range of engagement activities with partners.
- Eclipse had the opportunity to promote BAE Systems as their Platinum Sponsor, F1® in Schools and STEM at numerous events.

7 | DIGITAL MEDIA

DIGITAL MEDIA STRATEGY | What is it?

Digital media refers to any type of media content that is stored and transmitted digitally. **It is the most effective form of communication between Eclipse and their audience.** Digital media strategy is a clear, structured and well-communicated approach to how an organisation intends to use digital media to achieve specific goals.

Eclipse use digital media to achieve their marketing goals by amplifying the way the team promotes itself, partners, STEM and the F1® in Schools competition. Having been active on social media since 2019, **Eclipse has a strong online presence amongst the community**. In depth platform, competitor and audience analysis were conducted to devise their new strategy.

PLATFORM ANALYSIS

To identify Eclipse's target audience and justify platform choices, **6 of the most widely used social media channels were analysed.** Type of content, primary age groups and potential for organic growth (non advertisement-driven growth) were assessed.

Figure 7.1

SOCIAL MEDIA PLATFORM ANALYSIS	INSTAGRAM D2C	X (TWITTER) D2C / D2S	FACEBOOK D2C	LINKEDIN D2S	TIKTOK D2C	YOUTUBE D2C / D2S
TYPE OF CONTENT	VISUAL CONTENT (PHOTOS, VIDEOS, STORIES)	SHORT-FORM TEXT (IMAGES, VIDEOS, CONTENT RESHARING)	MIXED CONTENT (TEXT, IMAGES, VIDEOS, ARTICLES)	PROFESSIONAL CONTENT (ARTICLES, NETWORKING)	SHORT VIDEOS (ENTERTAINMENT, CREATIVE CONTENT)	VIDEO CONTENT (VLOGS, ENTERTAINMENT)
PRIMARY AGE GROUP	18-34 (65%) 13-17 (20%)	18-49 (40%) 25-34 (27%)	25-54 (40%) 18-24 (23%)	25-54 (61%) 18-24 (18%)	16-24 (60%) 10-15 (25%)	18-34 (77%) 13-17 (12%)
ORGANIC GROWTH POTENTIAL	VERY HIGH VISUAL APPEAL, EXPLORE PAGE DISCOVERY, YOUNG AUDIENCE	HIGH REAL-TIME UPDATES, TRENDING TOPICS, VAST DEMOGRAPHIC	MODERATE DIVERSE AUDIENCE BUT RELATIVELY LOW, RELIANCE ON PAID ADS	MODERATE D2P CONNECTIONS, INDUSTRY INSIGHTS AND NETWORKING	VERY HIGH VIRAL VIDEO POTENTIAL, TRENDS, YOUTH ENGAGEMENT	MODERATE SUBSCRIBER BASED, HARD TO APPEAR ON DISCOVERY PAGES

Eclipse intentionally explored feasibility of 'Direct' approaches on social media channels instead of traditional 'Business-to-' methods to form personal connections with consumers and stakeholders via D2C (Direct-to-Consumer) and D2S (Direct-to-Stakeholder). **This ensured strong engagement and alignment with marketing goals.**

COMPETITOR ANALYSIS

Eclipse **studied successful F1® in Schools team's digital media for insights into their competitive positioning** online and to identify what others do that they could adopt and enhance for improvement.

Examining 13 competitors across the three most popularly used platforms, identified in platform analysis above, helped Eclipse set targets that are aligned with those of previous World Champions. **Figure 7.2** shows data from Instagram, Twitter and TikTok along with key takeaways on their social media. As Instagram was by far the most used platform by all competitors, the team investigated further.

Instagram analysis found the Total Engagement of each team (Engagement Rate x Total Number of Posts). This metric favored teams that had the highest quality content and highest quantity for maximum engagement. **Figure 7.3** shows analysis conducted after the strategy was carried out and helped **Eclipse advance 4 spots to be ahead of all existing competitors.**

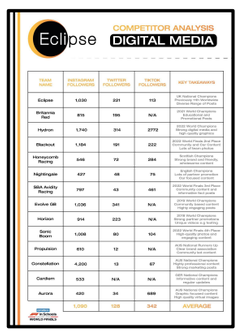


Figure 7.2

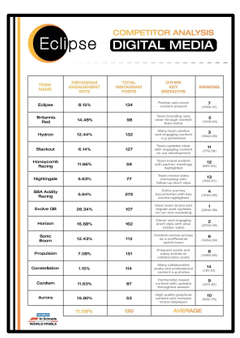


Figure 7.3

ACTIVE COMPETITOR ANALYSIS

Eclipse actively **conducted competitor analysis** on platforms such as LinkedIn to ensure targets were being met and if not, identify what needed to change. Shown in **Figure 7.4**, you can see **Eclipse ranking first in all performance metrics.**

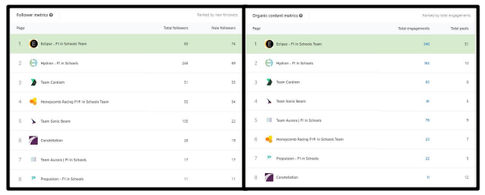


Figure 7.4

AUDIENCE ANALYSIS

Having an established social media meant Eclipse could use years worth of data from insights tools on Instagram, Facebook, LinkedIn, Twitter and TikTok to understand their **existing audience and analyse potential improvements.**

AGE

Eclipse's audience are predominantly 18-24. This is age is beyond their target age range for promoting STEM but ideal for partner ads.

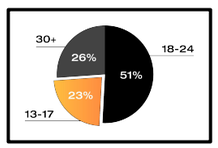


Figure 7.5

LOCATION

Expectedly, the vast majority of the teams followers were from the UK. Translating content to other languages was not justified as over **65% were english speaking** and most platforms now integrate tools for automatic translation.

56% UNITED KINGDOM | **26%** AUSTRALIA, BRAZIL & INDIA | **18%** OTHERS

GENDER

The team has a **balanced divide between male and female followers**. A result of efforts to highlight initiative prompting Girls in STEM whilst trying to appeal to all genders.

55% MALE | **45%** FEMALE

ACTIVE TIMES

There was a variation of only ~2% in the days of posting, however a strong **increase in active audience times between 6-9pm (BST).**



DIGITAL STRATEGY PLAN

The primary aim of the digital strategy is to achieve marketing goals. These were aligned with **SMART objectives for digital media to track progress using Key Performance Indicators (KPI's).** First the target audience was identified and then to quantify development, goals were associated with KPI's.

CONTENT BREAKDOWN

Eclipse split their content into 3 groups; **watchable, updates and partner advertisement.**

Figure 7.6 displays the 3-fold increase in like and comment interactions when posting watchable content online.

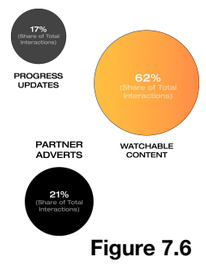


Figure 7.6

KEY PERFORMANCE INDICATORS (KPI's)

Below is a table of the marketing goals and associated SMART goals with justification of the KPI and goal for increase. These **SMART goals are 1.5x increases** from figures collected after the National Finals (16/01/2023). This will be used to justify if the digital strategy was executed.

KPI'S					
MARKETING GOALS	INCREASE AUDIENCE PARTICIPATION	BRAND CREATION	INCREASE FINANCIAL SUPPORT	PROMOTING PARTNERS	PROMOTING STEM
SMART GOAL	INCREASE AVG. ENGAGEMENT RATE BY 1.5x (7.5%)	INCREASE TOTAL FOLLOWING BY 1.5x (1250)	INCREASE TOTAL IMPRESSIONS BY 1.5x (315,000)	INCREASE PROFILE VISITS BY 1.5x (10,900)	INCREASE 13-17 AGE RANGE BY 1.5x (34.4%)
DIGITAL MEDIA SMART GOAL JUSTIFICATION	PARTICIPATION IS DIRECTLY LIKED TO ENAGEMENT RATE, SO INCREASING ONE WILL INCREASE THE OTHER ONLINE	BRAND VISIBILITY IS IMPROVED AND BECOMES MORE CREDIBLE WITHIN THE COMMUNITY WHEN FOLLOWING INCREASES	POTENTIAL PARTNERS ARE MORE LIKELY TO RECOGNISE ECLIPSE IF REACH (IMPRESSIONS) ARE HIGHER ONLINE	PARTNER POSTS CAN BE VIEWED BY MORE PEOPLE TO PROMOTE THEM FURTHER IF PROFILE VISITS ARE INCREASED	EFFECTIVENESS OF PROMOTING STEM IS INCREASED IF THE AUDIENCE IS OF A YOUNGER AGE RANGE

CONTENT PLAN

From competitor and audience analysis, it is clear that Eclipse needs to post from **6-9pm (BST) to maximise engagement** in the audiences most active times, also targeting their predominantly UK-based audience. Content is preferably watchable and personal to the team, as this is what interests F1® in Schools audiences - seeing what a team is actually getting up to.

DIGITAL MEDIA PLATFORM ENGAGEMENT

Eclipse proactively uses online platforms. The following analyses show how Eclipse executed their documented plans using KPIs from the start and end of the World Final digital media strategy which was a 7-month period compared to 36-month period for data collected up to the end of the National Final. Examples of popular posts are also shown below:

INSTAGRAM @eclipse.gb

Instagram was used as the primary social media platform for Eclipse. It is where the majority of their audience are located and is **very helpful for D2C (Direct-to-Consumer) interactions,** aiding direct and consistent engagement with audiences that allow for impactful relationships.

POPULAR POSTS



Silverstone 2023 Grand Prix

133 LIKES



Eclipse Earth Reveal Video

532 VIEWS



Singapore Airlines Partner Post

1,421 REACH

INSTAGRAM KPI'S

2023 NATIONAL FINAL

7,032 LIKES	160,210 IMPRESSIONS	610 FOLLOWERS	102 POSTS	4,472 PROFILE VISITS

2023 WORLD FINAL

9,090 ↑30% LIKES	250,681 ↑56% IMPRESSIONS	1,030 ↑69% FOLLOWERS	134 ↑31% POSTS	6,719 ↑50% PROFILE VISITS

Instagram was Eclipse's main source of impressions, the number of times posted content has been viewed by someone on their device. This helped drive the SMART goal set for increasing partner promotions.

X | 1st Verified F1® in Schools Team @eclipseqe

X, formerly known as Twitter, bridges D2C and D2P interactions as the platforms audience is well-split between professionals and personal users. **Eclipse were the first verified F1® in Schools team in history** and since accessing this service on the platform, the team have seen a **165% rise in impressions.** This surge could be attributed to the credibility and heightened visibility of tweets on X's discovery pages due to the 'blue tick'.

POPULAR POSTS



Team News Interview

16 LIKES



BETT UK 2023 Show

866 IMPRESSIONS



Singapore Airlines Partner Advert

19.5% ENGAGEMENT RATE

X KPI'S

2023 NATIONAL FINAL

830 LIKES	17,052 IMPRESSIONS	160 FOLLOWERS	445 POSTS	70 RETWEETS

2023 WORLD FINAL

1,177 ↑42% LIKES	45,100 ↑165% IMPRESSIONS	222 ↑39% FOLLOWERS	530 ↑19% POSTS	105 ↑50% RETWEETS

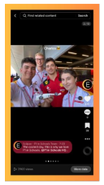
DIGITAL MEDIA | 1

- Strategically planned a clear and structured digital media strategy through proactive use of platforms and learning how to engage new audiences via Eclipse's target audience
- Competitor analysis conducted to improve digital media
- Content plan created to consistently output posts

TIKTOK @eclipse.gb

TikTok is the social media platform with **highest potential reach.** Eclipse saw the benefits of catching onto trends quickly, attempting to replicate the content of Formula 1 teams and the use of viral sounds. A platform Eclipse began to use for the World Final it helped achieve key goals.

POPULAR POSTS



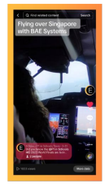
Silverstone 2023 Grand Prix Recap

♡ 620 LIKES



Silverstone Formula Student Event

👁 3000 VIEWS



BAE Systems Collaboration Visit @ Factory w/ Simulators

240 PROFILE VISITS

TIKTOK KPI'S

2023 NATIONAL FINAL

♡ LIKES	👁 VIEWS	FOLLOWERS	POSTS	PROFILE VISITS
124	2084	23	1	54

2023 WORLD FINAL

♡ LIKES	👁 VIEWS	FOLLOWERS	POSTS	PROFILE VISITS
1,533 ↑1,136%	14,798 ↑610%	114 ↑396%	9 ↑800%	392 ↑626%

Massive increases in all KPI's were observed from the start to end of Eclipse's digital media strategy. This helped increase total reach for the team and help promote partners, as seen in the TikTok to the right above.

LINKEDIN @eclipse-gb

LinkedIn was used as a specific tool for D2S (Direct-to-Stakeholder) connections. This helped Eclipse market themselves to professionals within the industry and directly to stakeholders of the team. Responding to all comments **created strong relationships within the community.**

POPULAR POSTS



Ceres Partnership Meeting Post

♡ 49 REACTIONS



National Champions Recap Post

👁 5 COMMENTS



Eclipse x BAE Systems Partnership Reveal

2,010 REACH

LINKEDIN KPI'S

2023 NATIONAL FINAL

♡ REACTIONS	👁 IMPRESSIONS	FOLLOWERS	POSTS	PROFILE VISITS
59	1,453	31	13	91

2023 WORLD FINAL

♡ REACTIONS	👁 IMPRESSIONS	FOLLOWERS	POSTS	PROFILE VISITS
325 ↑450%	5,876 ↑304%	83 ↑168%	51 ↑292%	398 ↑337%

LinkedIn helped collaborate with partners such as BAE Systems, who **actively included and reposted content by the team to their audience** of over 740,000 followers. This helped Eclipse not only become recognised within one of the biggest engineering companies worldwide, but amongst their other followers too.

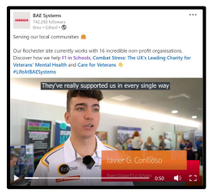


Figure 8.1

FACEBOOK @eclipseqe

Facebook helped Eclipse keep in touch with families, friends and the school community due to the older demographic of users. This helped develop their D2C audience further, strengthening personal relationships with supporters. **Watchable content was predominantly the most popular** in impressions, shares and comments across the platform.

POPULAR POSTS



Rotary Radio UK Interview

♡ 13 REACTIONS



Meet The Team Video

👁 173 IMPRESSIONS



Eclipse x BAE Systems Partnership Post

4 SHARES

FACEBOOK KPI'S

2023 NATIONAL FINAL

♡ REACTIONS	👁 IMPRESSIONS	FOLLOWERS	POSTS	PROFILE VISITS
167	827	14	29	52

2023 WORLD FINAL

♡ REACTIONS	👁 IMPRESSIONS	FOLLOWERS	POSTS	PROFILE VISITS
354 ↑112%	3,210 ↑288%	32 ↑129%	64 ↑121%	410 ↑688%

Although a relatively small proportion of Eclipse's audience, it was essential to keep this platform active to build on D2C relations in the community.

YOUTUBE @eclipseqe

YouTube was used to **post Eclipse's promotional videos.**

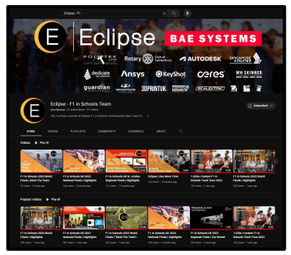


Figure 8.2

FACEBOOK KPI'S

2023 NATIONAL FINAL

👁 VIEWS	SUBSCRIBERS
1,539	14

2023 WORLD FINAL

👁 VIEWS	SUBSCRIBERS
1,938 ↑26%	22 ↑57%

Long-form content helped grow the brand by making personal connections via D2C (Direct-to-Consumer) relations which was aided by producing personal highlight videos for each Regional, National and World competition.

WEBSITE www.eclipse-gb.com

Figure 8.3



Eclipse's website was the 'hub' for the teams digital media presence, available to anyone, anywhere at any time. This featured information about Eclipse, F1® in Schools, Eclipse Earth (sustainability) and **outlined how interested businesses or professionals can collaborate with Eclipse.**

Creating a 'links' page (www.eclipse-gb.com/links) allowed a user to be redirected to any online platform used by the team. Most web traffic was directed here and **helped increase site visits by over 40%**.

2023 NATIONAL FINAL

👁 1,082 SITE VISITS

2023 WORLD FINAL

👁 1,530 ↑41% SITE VISITS

DISCORD SERVER discord.gg/hBRCyjb7fX

Eclipse created a discord server to be able to make D2C (Direct-to-Consumer) relations with their audience. Thousands of messages have been sent since its creation with **competitors, alumni and all types of supporters active on the server.**

2023 NATIONAL FINAL

23 MEMBERS

2023 WORLD FINAL

56 ↑143% MEMBERS

This is a very useful platform for the team to increase engagement with new posts, as every member on the server can be sent a notification to their device to alert them of new content from Eclipse. It helped keep 'true' supporters of the team engaged, as all members can ask questions, ask for help with the competition and talk to people in the server.

GOOGLE BUSINESS PAGE

Eclipse increased brand awareness by using **Google as a marketing platform**. This allowed the entire search-page to be filled with Eclipse's digital media when searching terms such as 'Eclipse F1®'.

Figure 8.4 shows the Google Business Page created by Eclipse to aid searches relating to the team. SEO (Search Engine Optimisation) allows web pages to rank higher in search engines (e.g Google) to increase organic web traffic, reach and impressions. **Listing Eclipse as an organisation on Google Maps led to thousands of web-redirections promoting STEM, F1® in Schools.**

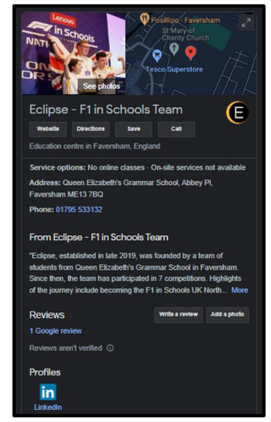


Figure 8.4

Eclipse F1

2023 NATIONAL FINAL

👁 10,129 IMPRESSIONS

2023 WORLD FINAL

👁 38,867 ↑284% IMPRESSIONS

Effective SEO and activity on digital media tripled visibility online to increase brand awareness and visits to other social pages.

CREATIVE DIGITAL MEDIA

Being creative across all digital media helped engage Eclipse's audience. Below are examples of how the team managed to increase audience engagement through creative initiatives:

INTERACTIVE CONTENT

Using Instagram stories, **Eclipse ran a 3-day Question & Answer session** which received over 2,400 impressions and 200 direct engagements with the team.



This improved D2C relations, as their audience was actively engaged with the team and learned more about Eclipse.

Figure 8.5

TEASER CAMPAIGNS

Eclipse generated excitement for their final season competing by teasing the team's comeback after previously announcing they would no longer be continuing in 2023.

The reveal video premiered on YouTube with an early access offer on their newly opened Discord server. This tactic **led to 500+ and 2300+ impressions online in just a week**, enabling the team to reenter the competition with a bang for 2023.



Figure 8.6

DIGITAL STRATEGY EXECUTION

Eclipse's efforts resulted in **consistently increased KPI metrics** like impression and followers. Replying to all comments, embracing trends (e.g using Threads, a rival app to Twitter) and **exploiting social media algorithms** (e.g utilising Instagram carousels for repeated feed visibility) helped increase engagement. Eclipse promoted Girls in STEM, British Science Week, ran F1® in Schools blogs and met with teams from across the world. The table below shows strategy outcomes with data collected from insights tools e.g Meta Business Suite:

KPI'S	♡ ✓	✓	👁 ✓	✓	✓
MARKETING GOALS	INCREASE AUDIENCE PARTICIPATION	BRAND CREATION	INCREASE FINANCIAL SUPPORT	PROMOTING PARTNERS	PROMOTING STEM
SMART GOAL	INCREASE AVG. ENGAGEMENT RATE BY 1.5x (7.5%)	INCREASE TOTAL FOLLOWING BY 1.5x (1250)	INCREASE TOTAL IMPRESSIONS BY 1.5x (315,000)	INCREASE PROFILE VISITS BY 1.5x (10,900)	INCREASE 13-17 AGE RANGE BY 1.5x (34.4%)
DIGITAL MEDIA SMART GOAL OUTCOMES	INCREASED TO AN AVG. ENAGEMENT OF 8.2% (ACROSS ALL PLATFORMS)	INCREASED TO A TOTAL OF 1559+ FOLLOWERS	INCREASED TO A TOTAL OF 362,000+ IMPRESSIONS	INCREASED TO A TOTAL OF 11,449 PROFILE VISITS	INCREASED 13-17 AGE RANGE TO 35.1% (AVG. ACROSS ALL PLATFORMS)

DIGITAL MEDIA | 2

- Effective digital media strategy meant Eclipse's social media platforms increased in all KPI's to align and further develop marketing goals.
- Proactive use of platforms helped improved brand recognition online.
- Lead Eclipse to become the team with the greatest social media.

SUSTAINABILITY | What is it?

Sustainability is ability to maintain or support a process over time. Sustainability is often broken into three core concepts; **environmental, social and economic.** All play a vital role in the foundations of the methodology. Sustainability is fundamental to the future of STEM and as a team, **Eclipse has a role to play.**

As part of Eclipse's ethos from the beginning of their journey sustainability has been a part of what they do, and not just because it is 'trending' but because the team feels it is their responsibility to leave a mark and make change - no matter how small.

Eclipse Earth is a **sustainably scheme** created by Eclipse to ensure they are fully environmentally, socially and economically sustainable as possible. The team **partnered with Ceres** to establish this scheme to make sure it was professionally creditable.

Figure 9.1 - Eclipse Earth x Ceres

ECLIPSE EARTH

Eclipse Earth has 4 goals:

A. Become a fully sustainable F1® in Schools team
B. Promote sustainability in F1® in Schools
C. Promote Eclipse's sustainability efforts
D. Promote supporters of Eclipse Earth

ECLIPSE EARTH

Eclipse created a **marketing scheme specific for the Eclipse Earth** sub brand with a document compiling all activity and to monitor sustainability activity.

In order for Eclipse Earth to have a tangible impact on the F1® in Schools community and promote sustainability, the team created a pledge, which others can sign up for on the website.

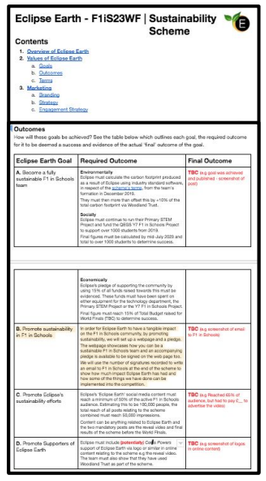


Figure 9.2 - Eclipse Earth Scheme

The scheme takes into account waste, carbon footprint and emissions. **Calculations are conducted using Ansys Granta EduPack** for material information and other industry standard softwares for actions such as transportation..



Figure 9.3 - Eclipse Earth Pledge

Below evidences Eclipse's Eco audit, **Figure 9.4,** and total energy used showing the team's carbon footprint to be 7216.2KG of CO_2:

Phase	Energy (MJ)	Energy (%)	CO2 footprint (kg)	CO2 footprint (%)
Material	1862.4	84.3	97.6	34.0
Manufacture	325.9	14.7	187.8	65.4
Transport	0.0	0.0	0.0	0.0
Use	0.0	0.0	0.0	0.0
Disposal	22.2	0.0	1.6	0.6
Total (for first life)	2210.5	100.0	287.0	100.0
End of life potentia	-1157.9		-29.8	
Travel	66875.7		6959.0	
Total	1052.6		7216.2	

Figure 9.4 - Eclipse Eco Audit

ENVIRONMENTALLY

Through the Net Zero 2030 campaign, F1® is committed to conducting a carbon-free and sustainable formula racing competition by 2030.

F1® is committed to doing their bit and this is why Eclipse must ensure they do the same. Environmentally the team are tackling sustainability very effectively. By **ensuring the team is carbon neutral** and undergoing **green initiatives such as tree planting and the eco pit display**.

Eclipse break down activities into the 3'Rs:

- **Reduce**
  - Pit size
  - Modelling testing
  - Outfits
  - Transportation
  - Energy consumption

Ensuring the team use green material where possible and reducing wastage.

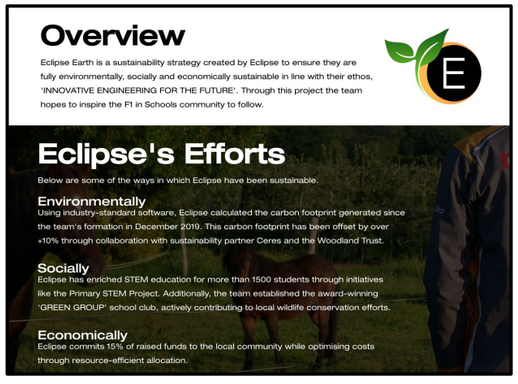
- **Recycle**
  - Pit
  - Outfits
  - Machinery etc.

The team recycled or upcycled wherever possible.

- **Recover**
  - Carbon negative
  - Tree planting
  - School schemes
  - Solar power - See pit display

Eclipse gave back to the community and supporting initiatives for the future.

Figure 9.5 is an overview of the team's efforts



ECLIPSE EARTH KEY FACTS

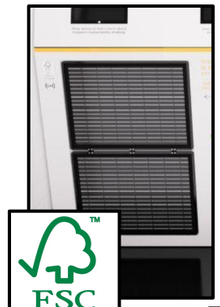
CO_2 Produced 7188.07kg	People Pledged 115
CO_2 Offset 7,906.87kg	People Engaged 3,409

Figure 9.5 - Eclipse Earth Facts

PIT DISPLAY

Working with WH Skinner and Guardian Displays, Eclipse designed the pit to be **made entirely from cardboard with FSC Certification.** The pit display is 100% fully recyclable this includes the boxes as well as the banners. All of the pit was designed to be as lightweight as possible to reduce energy needed for transportation.

The pit display is **100% green powered.** It is self-powered via a solar panel and two battery packs.



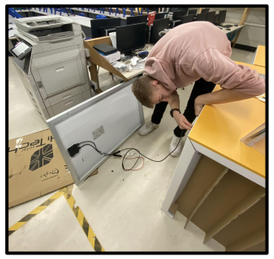


Figure 9.6 - Pit Display

The pit display **showcases the use of upcycling,** demonstrating how discarded CO2 canisters can turned into useful products such as jewellery.

```
total_pressure = ((mg * rg * (temp + 273))) / vg * 0.005
"PV = nRT"
pressure = total_pressure
"pressure in pascals"
interval = 0.01
pressure_drop_interval = interval/8 * total_pressure
nossel_area = m.pi * (5) ** 2

force_lst = []
while pressure > 0.01:
    pressure -= pressure_drop_interval
    force = pressure / nossel_area
    force_lst.append(force)
```

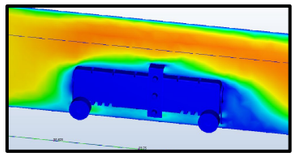


Figure 9.7 - Virtual Testing

CAR

Eclipse used virtual testing, a **monocoque body and python software to reduce use of foam blocks** as these cannot be recycled, all other elements of the car including front and rear wings are recyclable.
The use of PLA allowed the team to simply grind up discarded parts and remelt the polymer into new parts if desired.

TREE PLANTING

To offset carbon fuel costs the team planted an orchard at a local farm. For 2 years the team created and managed 'green group' in school and supported efforts to plant trees around the school field. **Resulting in the school winning numerous Eco Awards.**

By playing an active role in green group, supporting initiatives to make the community environment more green. The school achieved a **plastic free school award**, alongside others seen in **Figure 9.11**:





Figure 9.8 - CO_2 Branding







Figure 9.9 - Tree planting



Figure 9.10 - Eco Uniforms

Figure 9.11 - In schools groups and awards











UNIFORM

The fashion industry is known for being one of the world's number one producers of greenhouse emissions. Working with Presca, **Eclipse's uniforms are fully sustainable, made from recycled bottles.**

SUSTAINABILITY | 1

- Eclipse must ensure they are tackling sustainability, by ensuring carbon negativity and undergoing green initiatives as well as investing in the community.
- In order for Eclipse Earth to have a tangible impact on the F1® in Schools community promoting sustainability, the team set up a pledge. Eclipse Earth takes into account waste, carbon footprint and emissions.

ECONOMIC SUSTAINABILITY

Sustainability isn't just about being eco conscious. It is about **Economic and Social sustainability**. To govern economic sustainability Eclipse embraced excellent project management. Through regular meetings the team ensured they communicated expenses and decision making. The key to economic sustainability was wastage, by **reducing your wastage you reduce your costs**.

When creating partnerships with sponsors the team often prioritised manufacturing aid over financial. This allowed higher quality on deliverables as the team outsourced to industrial experts with elements such as the pit display, car components and uniforms, **reducing expenditures and waste which was vital for economic sustainability**.

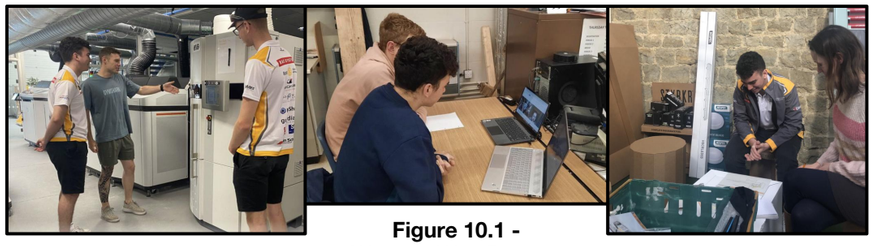


Figure 10.1 - Working With Partners

Developing bonds with partners is vital for sustainability as it increases security and longevity of the relationship. Making lasting connections such as with BAE Systems has led to much higher quality and sustainable outcomes.



Figure 10.2 - BAE Systems Return on Investment (ROI)

In return for the investment of partners, Eclipse pledged 15% of all investment back to the community. Purchasing equipment for the schools technology department will allow future generations of students to access new laser cutters, 3D printers, a smoke tunnel and a half sized F1® track used by the year 7s for their mini F1® project. Alongside this there is the Primary STEM project, all building a **sustainable future for STEM enthusiasts**.



Figure 10.3 - Equipment Purchased by Eclipse for Technology Department

REDUCING COSTS

One of Eclipse's sustainability objectives was to **reduce where possible**. This initiative saved money on materials and additional 'add ons'. It is fundamental to consider this on all deliverables. Considering the life cycle of the pit display, the team have ensured it is fully recyclable, made from sustainable materials and powered efficiently. Additionally, due to the pit display being able to fold down, fuel wastage and costs are reduced. Likewise the car development focused on minimising waste, therefore costs, by using virtual tests.

SOCIAL SUSTAINABILITY

Social sustainability is fundamental to Eclipse's ethos. As a team **Eclipse love to educate, inspire and give back**. The F1® in Schools competition has not just benefited the three members of the team, the skills and experiences gained through the campaign have had a positive social impact on the wider community too. From running primary school STEM events, promoting a green ethos via Eclipse Earth and supporting teams across the globe, the team have left a sustainable footprint that will continue long after the world finals.

By delivering an educational and entertaining STEM day for schools in the local community by collaborating with primary teachers, Eclipse have impacted over 15 schools and 1000 students. **The students loved it, were engaged with STEM and it helped support a more sustainable future**.

GLOBAL COLLABORATIONS

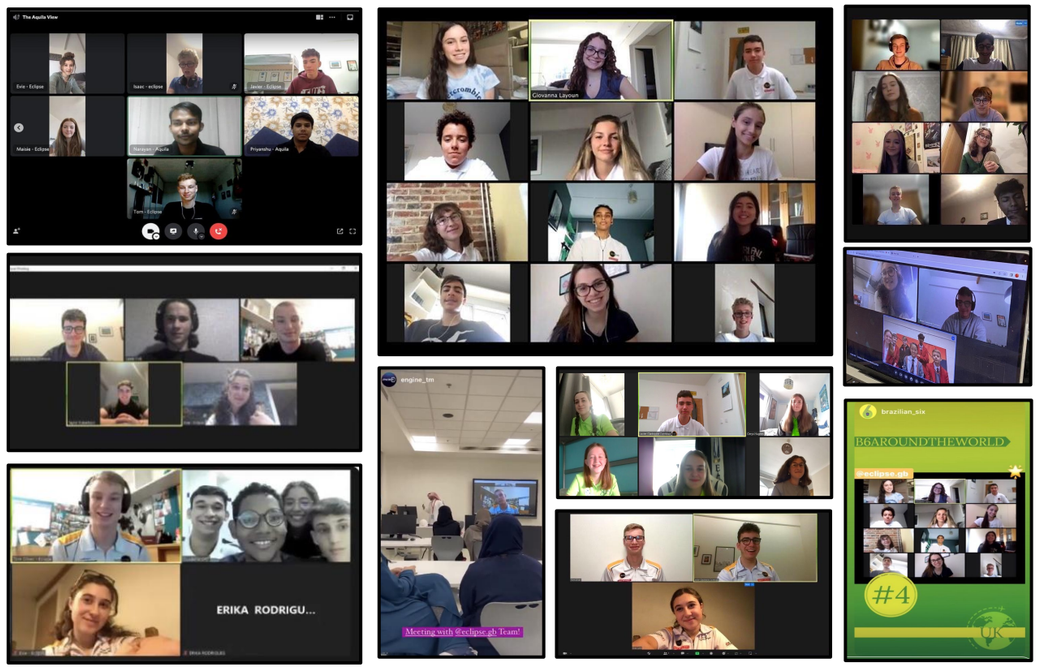


Figure 10.4 - Mentoring Teams Worldwide



Figure 10.5 - Primary STEM Project



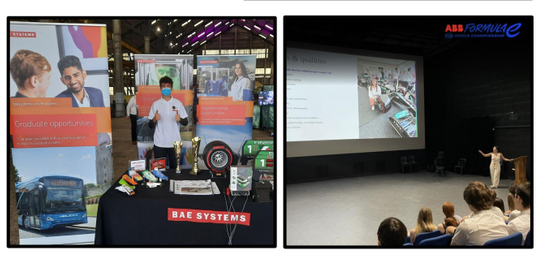


Figure 10.6 - More Outreach Projects

ECONOMIC, SOCIAL & ENVIRONMENTAL SUSTAINABILITY

Eclipse innovated in all areas of the competition and that included their efforts to be economically, socially and environmentally sustainable. The team business cards for Eclipse Earth are printed on **wildflower seed paper**, so when planted in soil, wildlife is able to grow and flourish.

This encourages all three types of sustainability and is also a marketing material for the team as they will be handed out to attendees at the World Finals, encouraging them to get involved with Eclipse Earth.

Figure 10.7 - Eclipse Wildflower Business Cards

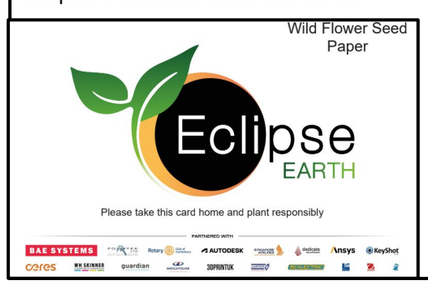
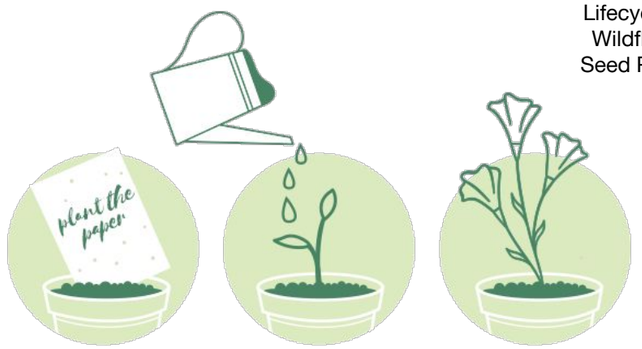


Figure 10.8 - Lifecycle of Wildflower Seed Paper



SUSTAINABILITY | 2

- Eclipse ensured environmental, economic and social sustainability by being carbon negative, investing in the local community and actively collaborating.
- Creating an effective sustainability strategy (Eclipse Earth) via several evidenced activities has allowed the team to consider all factors and positively affect the community around the team locally and globally.


in Schools
Tom oliver
Manufacturing Engineer
in Schools
National Champions Trophy