



NEWCASTLE RACING

2018 - 2019

PARTNERSHIP BROCHURE



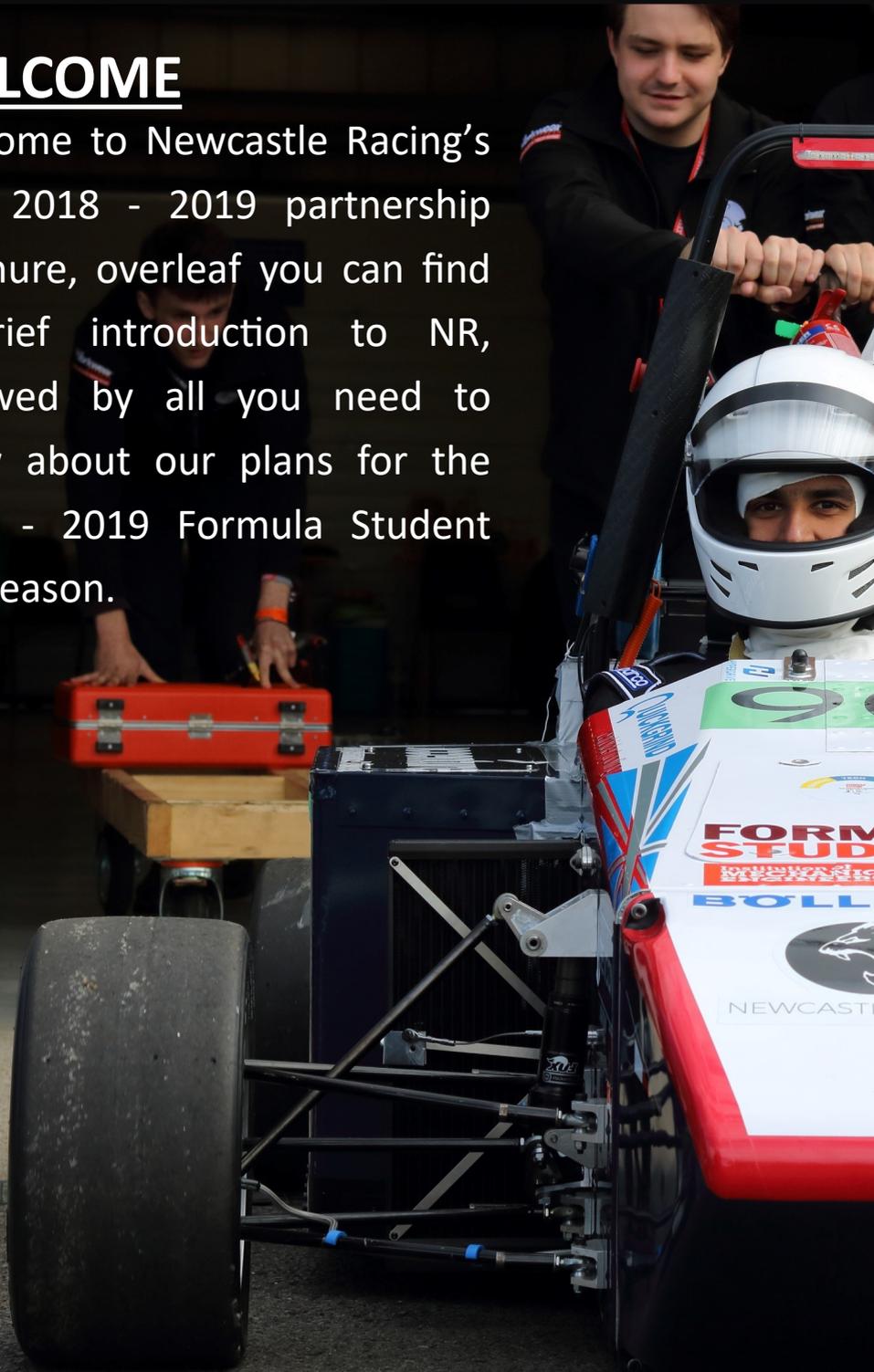
**FORMULA
STUDENT**

Institution of
**MECHANICAL
ENGINEERS**



WELCOME

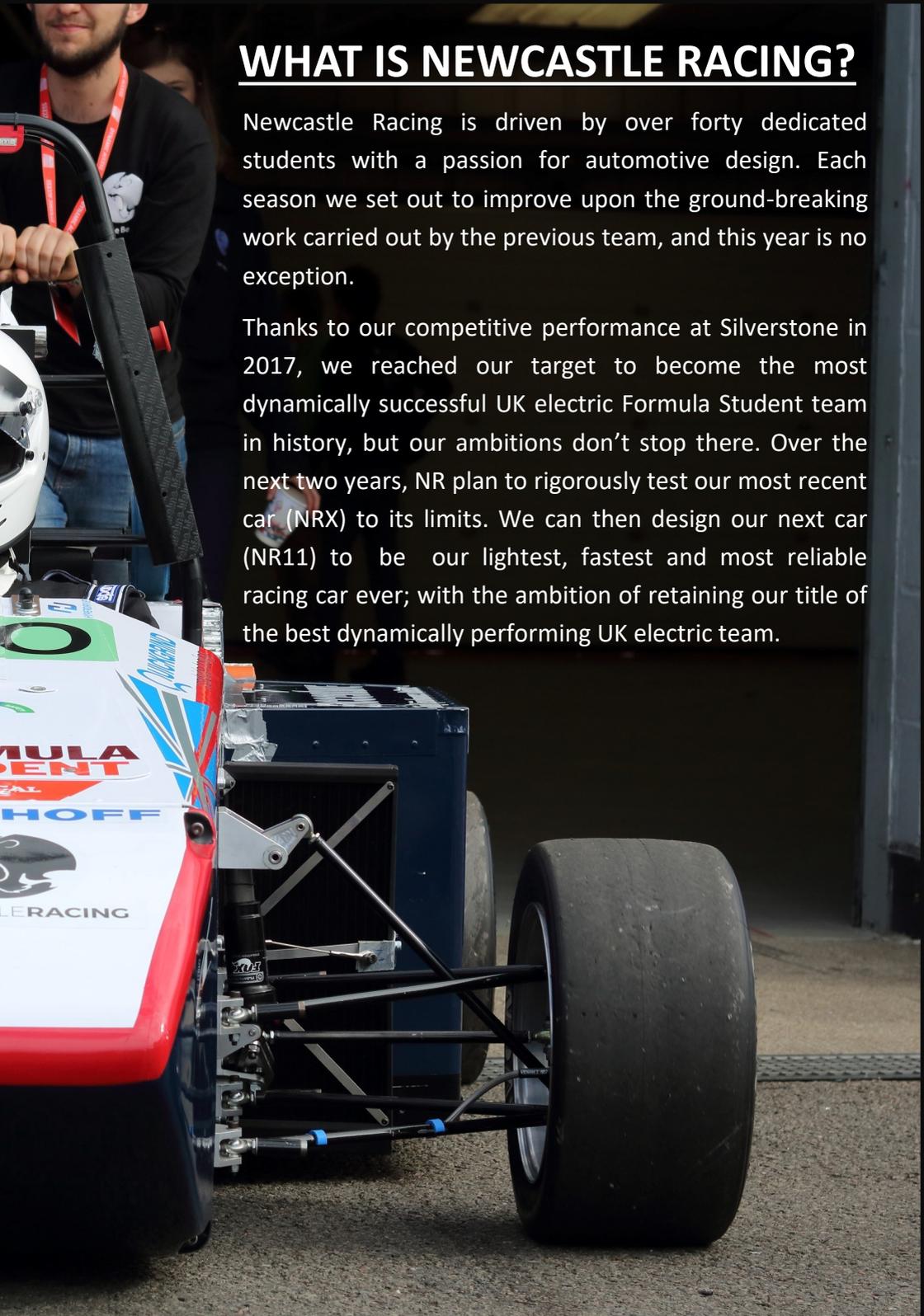
Welcome to Newcastle Racing's (NR) 2018 - 2019 partnership brochure, overleaf you can find a brief introduction to NR, followed by all you need to know about our plans for the 2018 - 2019 Formula Student (FS) season.



WHAT IS NEWCASTLE RACING?

Newcastle Racing is driven by over forty dedicated students with a passion for automotive design. Each season we set out to improve upon the ground-breaking work carried out by the previous team, and this year is no exception.

Thanks to our competitive performance at Silverstone in 2017, we reached our target to become the most dynamically successful UK electric Formula Student team in history, but our ambitions don't stop there. Over the next two years, NR plan to rigorously test our most recent car (NRX) to its limits. We can then design our next car (NR11) to be our lightest, fastest and most reliable racing car ever; with the ambition of retaining our title of the best dynamically performing UK electric team.



WHAT IS FORMULA STUDENT?

“Formula Student is Europe's most established educational motorsport competition. Backed by industry and high-profile engineers such as patron, Ross Brawn OBE. The competition aims to develop enterprising and innovative young engineers and encourage more young people to take up a career in engineering.” – Institute of Mechanical Engineers

Formula Student invites teams of engineering students from around the world to design, test and build single seat race cars, before competing at high profile events against other universities. Tournaments are held at various racetracks across the world, however FS UK is the most prestigious of its kind. As a result, over a hundred teams, thousands of students and many industry leaders gather to crown the Silverstone champions. There is a mixture of internal combustion and electric racers which compete in stages ranging from an endurance race, to a business presentation.



COMPETITION LOCATIONS INCLUDE:

- Silverstone, UK
- Circuit De Barcelona, Spain
- Hockenheim, Germany

COMPETITION CLASSES:

The competition consists of two classes so that teams may enter cars at varying stages of completion:

Class 1: This is the main event, where teams compete with cars they have designed and built. Teams are judged across six categories and must pass a rigorous inspection by judges before being allowed to compete in the dynamic events. There are usually 100-120 teams in this class.

Class 2: This is a concept class for teams who only have a design and plan for a Class 1 car. Any parts or work that have been completed in the project so far can be displayed at the event.



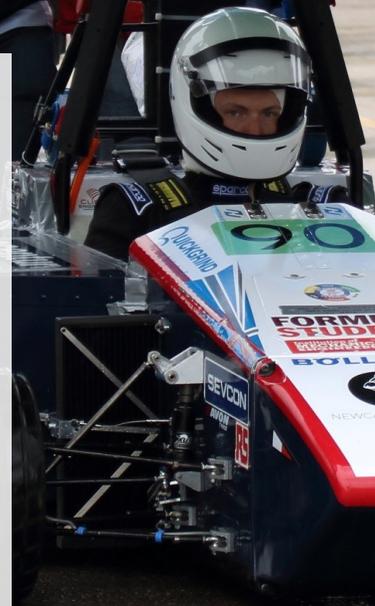
THE TEAM

Newcastle Racing consists of a team of highly enthusiastic students, supervisors, and of course our industrial partners.



Newcastle Racing is made up of a team of forty extremely dedicated 3rd and 4th year mechanical, electrical and postgraduate engineering students who are supported by an expert team of supervisors and external partners.

At Newcastle Racing we are keen to form rewarding relationships with all of our partners, so that both parties may benefit from engineering expertise, high class graduates, publicity and funding on offer.



OUR PARTNERS

Without our industrial partners providing machining, set-up and financial support we could not continue to operate. A small selection of them can be found below

AXMINSTER

QUICKGRIND
carbide tooling

Tools & Machinery

Santander
UNIVERSITIES

Coilcraft **LOCTITE** OSBIT

Altair
Engineering a Future

BRITISH ENGINES

REACT
CROSBYS ENGINEERING LIMITED

LAMPLAS
POLYMER ENGINEERING

Gates

RS

REECE
FOUNDATION

GRADCRACKER
WHERE THE JOBS ARE

NEWCASTLE RACING'S HISTORY

Newcastle Racing competed at its first Formula Student event in 2004 with our internal combustion car NR1, after being established in 2001.

We have come a long way since those days; our latest car, NRX (2017), was officially the first UK electric car to successfully pass scrutineering. This allowed us to go on to compete in the dynamic events, where we gained more points than any other UK electric team.

Background Image - NRX competing in the endurance event at the Formula Student competition at Silverstone in 2017.



KEY FEATURES OF NRX

- Bespoke student built batteries and electrical system
- Lightweight drivetrain, monocoque chassis and wheel packages
- Power to weight ratio of 340 hp/t
- Double wishbone suspension with air shocks
- 80 kW EMRAX 228 motor
- 0 to 60 MPH in sub 3 seconds



FUTURE PLANS AND NR11

The aim for the 2018 - 2019 season is to continue to comprehensively test NRX to its limits, collect data, and begin building the next generation of race car, NR11. Newcastle Racing will compete in the Class 2 event at Silverstone in 2019, with the aim of attaining a top 10 position overall. NR11 will then then be fully manufactured the following year to compete in Class 1 in 2020.

NR11 will be the lightest, fastest and best performing car produced by Newcastle Racing. In depth analysis of NRX will allow us to optimise the design of NR11, with the aim of maintaining our title as the most dynamically successful electric team in the UK.



**NR11
Concept**

ALUMNI

Over the years, Newcastle Racing team members have gained employment at various market leading companies. Below are quotes from some of our most recent graduates, on their time at NR.

Jon Mitchell - Graduate Engineer - McLaren Racing Limited

“Building a racing car with like minded students was one of the best projects at university. It provided the opportunity to learn crucial engineering skills in a competitive, fun and exciting environment. The challenges that needed to be overcome were immense and highly similar to those faced in commercial motor racing. The added complexity of competing with an electric car made the challenge even harder, but the rewards even greater.”

James Wilson - Motoring Journalist - Auto Express

“Joining Newcastle Racing was the second best idea I had during my time in sunny Newcastle. It was, of course beaten by securing free pies for the event. While success required hard work and dedication, it was a fantastic opportunity to meet some truly incredible people and further my career by networking with industry.”

Sam Dalby - Graduate Engineer - Royal IHC

“The challenges faced during my time with Newcastle Racing prepared me for my career in engineering like no other university project could. Being able to be in contact with so many industrial partners put me ahead of other graduates. Employers love to see Formula Student on C.Vs as it shows dedication and passion for engineering. Without Newcastle Racing and Formula Student, I wouldn't have the engineering career I have today.”

PARTNERS SCHEME AND SPONSORSHIP OPPORTUNITIES

There are currently over 500 teams that compete in Formula Student competitions around the world, with each team consisting of some of the most capable students and engineering talent that our generation has to offer, NR is no different. Partnering with NR gives brand awareness to these high quality graduates, resulting in a superior relationship with the top employees and clients of tomorrow. In addition to this, NR offers a range of direct benefits to partners, as seen below:

- Full access to NRX, future cars and the team for corporate events
- Promotion of your company throughout Newcastle University, through display cars and promotional material
- Promotion of your company throughout NR's ever increasing social media coverage, including Facebook, Twitter, Gradcracker, Instagram and our newly developed website
- The ability to publicise your support of educational projects involving sustainable technology





Quickgrind team photo at the Formula Student event, Silverstone, 2017.

Quickgrind provide us not only financial support, but also tooling and advice

Santander Universities business event, McLaren Technology Centre, 2017

Santander Universities have supported us financially for many years now. They also host many networking and industrial events.



Starbucks sponsorship package - one of the many received from our kind supporters.

Newcastle Racing appreciate any help. Machining, material and hospitality gifts are always welcome.



SPONSORSHIP TIERS

To allow us to meet our aims this year, we need industrial partners who are as passionate and committed to our goals as we are, to help us with machining, component supplies and finance. All partners will receive a monthly newsletter keeping them up to date with progress, which they are free to forward to their customers/suppliers. Social media posts will accompany partnership activity. The following tiers are guidelines, with a continual support bonus applied to partners. Inter-partner networking will also be facilitated. **Benefit in kind is equal to cash.**

Platinum - £4,000 plus

Large prominent sponsorship logo will not only appear on the car and team wear but will be displayed at the workshop, around the university and around the paddock at the event, to which they shall receive two tickets. Corporate events will be attended by the team and car on behalf of the company. A linked description of the company will feature prominently on the website. Company will gain direct access to graduates, with vacancies advertised when appropriate.

Gold - £1,500 plus

Large sponsorship logos are featured on the car, team wear and around the paddock. We can attend events on behalf of the company and provide access to graduates. Feature on the website with a brief description of the company.

Silver - £500 plus

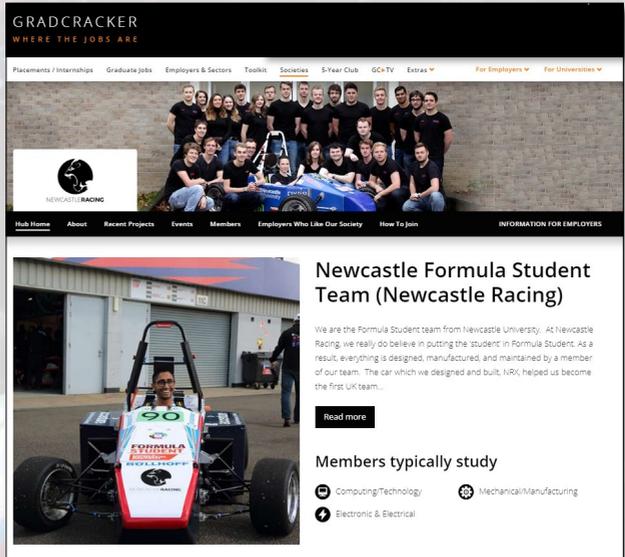
Medium logos are placed on the car, and on team clothing. We can attend limited events on behalf of the company. Logo will feature on the website.

Bronze - Up to £500

Logos are placed on the car and on the website.

SOCIAL MEDIA

Newcastle Racing has an ever growing social media presence thanks to our many supporters. The most recent developments are the newly renovated Newcastle Racing website and our brand new Gradcracker interactive hub. These allow employers and students to learn about NR and get in touch with the hard working engineers within the team who make this all possible.



GRADCRACKER
WHERE THE JOBS ARE

Placements / Internships Graduate Jobs Employers & Sectors Toolkit Societies 5-Year Club GC+TV Extras For Employers For Universities

Hub Home About Recent Projects Events Members Employers Who Like Our Society How To Join INFORMATION FOR EMPLOYERS

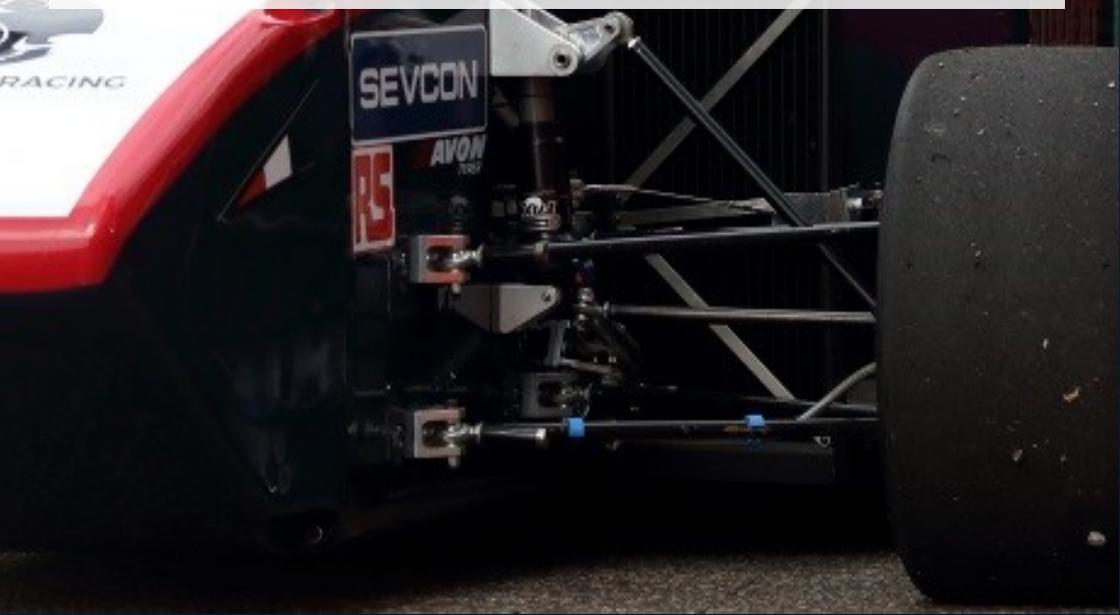
Newcastle Formula Student Team (Newcastle Racing)

We are the Formula Student team from Newcastle University. At Newcastle Racing, we really do believe in putting the student in Formula Student. As a result, everything is designed, manufactured, and maintained by a member of our team. The car which we designed and built, NR01 helped us become the first UK team...

Read more

Members typically study

- Computing/Technology
- Mechanical/Manufacturing
- Electronic & Electrical





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www.gradcracker.com/student-societies



www.newcastle-racing.co.uk

