



HYRAZE LEAGUE

LET'S MAKE THE WORLD A BETTER RACE

18th August 2020



DMSB

HWA
ENGINEERING SPEED

SCHAEFFLER





OUR VISION

WHY WE ARE LAUNCHING THIS PROJECT

HYRAZE LEAGUE

WHAT IS BEHIND THE NAME OF THE SERIES

A VISIONARY CAR

TECHNICAL DATA AND BACKGROUND

AN INNOVATIVE SERIES

TWO WORLDS, ONE CHAMPIONSHIP

OUR ROADMAP

THE TIMETABLE LEADING UP TO THE FIRST RACE

STRONG PARTNERS

GREAT THINGS ARE ONLY POSSIBLE TOGETHER

HOW DO YOU REINVENT RACING?
MAKE IT MORE SUSTAINABLE?
MORE EXCITING?

It's simple: You stop chasing the future.
And bring it to the present.

Race cars fueled by hydrogen.
And Sim-Pros going head to head.

In the first interdisciplinary racing series of all time.
Hydro-driving teams up with Esports.

Two pros. One competition. Zero emissions.

So yeah, the future may come.
If it can keep up with us.

Because this is the reinvention of racing.
It's a league of its own. The first of its kind.

OUR VISION

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“Motorsport is incredibly important to us. We have noticed that the environment and youth are becoming major topics. Which is why it is the company’s task to develop a car with almost zero emissions. Which was why it was really important to us to attract partners for this project who master or develop this technology.

I’m extremely grateful for this. We are confident that this is the technology of the future. And motorsport is the key to presenting it to the people.”



**HANS WERNER
AUFRECHT**

Chairman of the
Supervisory Board at HWA



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RACING



HYDROGEN



H₂Y + RA + ZE
HYDROGEN RACING ZERO EMISSION
LEAGUE



ZERO EMISSION



ESPORT

This is the **HYRAZE LEAGUE** - *the first of its kind*



- Addresses multiple target groups, thanks to the linking of the virtual Esports world with the real world at the actual circuit, taking motor racing to a new level.
- Sustainable motorsport: hydrogen produced using environmentally-friendly techniques, energy regeneration, lower abrasion and the use of sustainable raw materials offer maximum efficiency whilst at the same time conserving resources.
- Technology platform: development boost and technology transfer from motorsport to series production and everyday traffic.
- Network of strong partners with many years of motorsport expertise: ADAC e.V., DEKRA SE, DMSB e.V., HWA AG, Schaeffler AG and WESA



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A HYDROGEN CAR WITH GT3 LAP TIMES

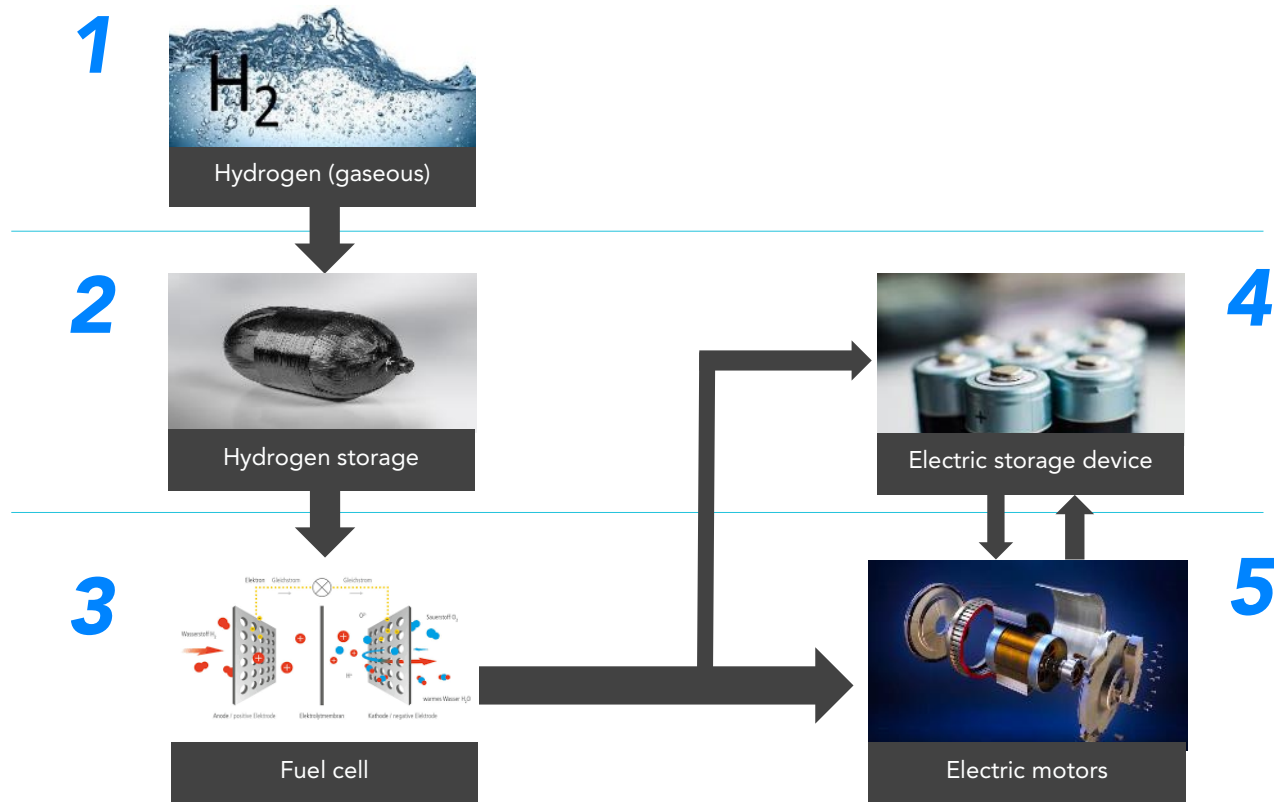


- OUTPUT: >800 hp
- TOP SPEED: > 250 km/h
- 0 – 100 km/h: < 3 seconds
- POWER/WEIGHT RATIO: < 2kg/hp
- FOUR-WHEEL DRIVE: four wheels, four motors
- RACE LENGTH: suitable for sprints and endurance races



ZERO-EMISSION DRIVETRAIN

The hydrogen-powered race car



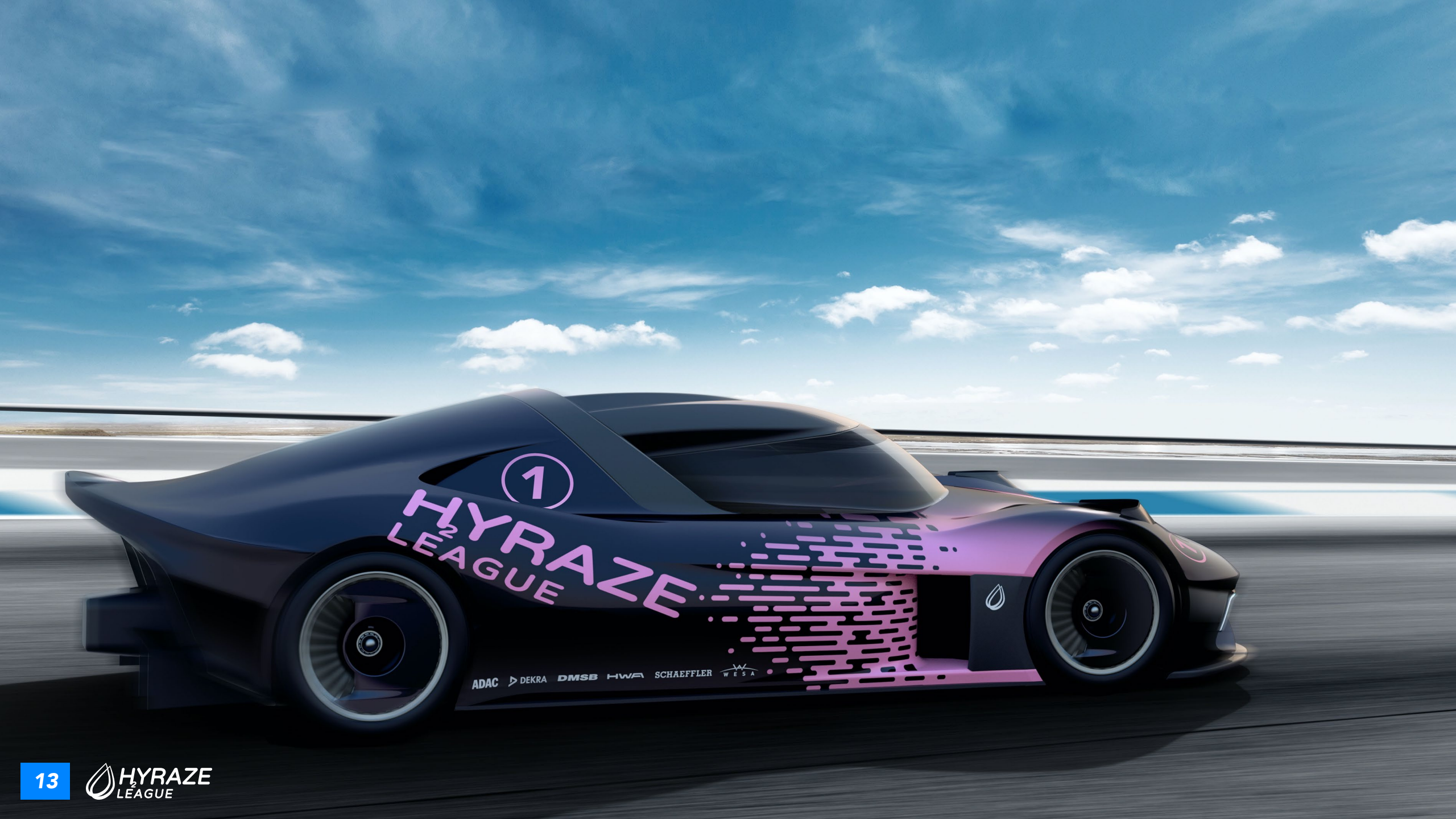
1 100 percent of the drive power is acquired from green hydrogen.

2 The hydrogen is stored as a gas with up to 700 bar in carbon tanks.

3 The fuel cells produce electricity for propulsion. They can also be used to charge the electric storage devices in the garage.

4 A high-power battery serves as a buffer for excess electricity.

5 Four e-motors drive the car and generate electricity when braking (regeneration).



THE KEY TO **MORE SUSTAINABILITY**

ZERO-EMISSION DRIVETRAIN

- Use of green hydrogen
- Fuel-cell drive with high of energy regeneration

INNOVATIVE BRAKING SYSTEM

- Reduction of particle emissions through encapsulation of brakes
- Storage of particles in car
- Disposal via controlled recycling loop

MINIMISED TYRE WEAR

- Minimised tyre wear thanks to new materials
- More sustainable process chain when producing raw materials
- Strict maximum number of tyres

REPLACEMENT OF CARBON-FIBRE COMPONENTS

- Reduction of the CO₂ footprint by using natural-fibre composites

MAXIMUM SAFETY STANDARDS ACHIEVED THROUGH MODERN COMPONENTS

- Development and testing of safety standards with DEKRA and DMSB
- Integration of safety requirements since start of work on concept





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**TWO WORLDS,
ONE. CHAMPIONSHIP.**

UNIQUE SERIES FORMAT

THE HYRAZE LEAGUE COMBINES REAL MOTOR RACING AND ESPORTS IN A COMPLETELY INNOVATIVE WAY.

- Each team consists of two drivers
- First driver contests a real race
- Second driver contests a sim race
- Both results count towards the championship standings in equal measure
- Chance for sim racers to drive a real race car



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AUGUST

Announcement

2020

Development of car
and series

2021

Car test phase

2022

First race series in
Germany

2023

Further race series around
the world

2025

NOVEMBER

Start of qualification
phase for Esports



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ADAC



“We were immediately impressed by the visionary concept of the HYRAZE League. The combination of actual motor racing with multifaceted new technologies and Esports will achieve a new relevance for motorsport. The HYRAZE League is a genuine pioneering step in the world of motorsport and will allow a broad target group to experience fascinating, future-oriented technology. As one of the biggest organisers of motorsport events in Europe, we support innovative new formats and are happy to take on the challenge of shaping the motorsport of the future with the HYRAZE League.”



**HERMANN
TOMCZYK**

ADAC Sports President

Over 21 million people put their faith in the expertise of the ADAC – whether for road safety, travel, technology, legal issues, new developments in mobility, or motorsport. Together with its local and regional clubs, the ADAC organises more than 2500 motorsport events each year, making it one of the biggest organisers of motorsport events in Europe. The ADAC Rally Germany and the German motorcycle Grand Prix at the Sachsenring are two of the biggest sporting events in Germany, while the ADAC GT Masters is one of the world’s top GT racing series.



“Motorsport remains an ideal platform for technological progress. For this reason, we must arrest the loss of significance, with which we are threatened: through innovation, attractiveness and the consistent alignment towards future-oriented technology. The overall concept of the HYRAZE League has really impressed us in this regard. The project offers us the unique opportunity to promote the development of expertise in the field of safety technology – an area that is becoming increasingly complex.”



**CLEMENS
KLINKE**

Member of the
Management Board at DEKRA

DEKRA has been working to achieve greater safety for more than 90 years: Formed in 1925 in Berlin as the “Deutschen Kraftfahrzeug-Überwachungs-Verein e.V.”, DEKRA has become one of the world’s leading expert organisations. DEKRA SE is a wholly-owned subsidiary of DEKRA e.V. and manages the group’s operations. In 2019, DEKRA achieved a turnover of € 3.4 billion. Almost 44,000 staff are employed in roughly 60 countries on all five continents. With qualified and independent experts, DEKRA works to make the world safer – on the roads, at work and at home. The portfolio ranges from vehicle inspections and reports on claims settlements, industry and building inspections, security consulting, and the testing and certification of products and systems, to training and temporary employment. The vision for the company’s 100th birthday in 2025: DEKRA is to be the global partner for a safe world.

DMSB



“The HYRAZE League sees the launch of a project that is pioneering in two senses for the development of German and international motorsport: on the one hand, cutting-edge hydrogen technology will be used at the racetrack in extremely safe cars. On the other hand, actual motorsport will be perfectly combined with virtual racing.”



**DR. GERD
ENNSER**

Member of the DMSB's
Executive Committee for automobile sport

Sporting competition needs rules and referees to ensure those rules are adhered to. In German motorsport, that role is taken on by the Deutscher Motor Sport Bund (DMSB): it grants racing driver and circuit licences, trains officials, defines regulations, and thus establishes the parameters for safe and exciting motorsport. The DMSB also looks after the interests of German motorsport athletes at all public and sporting levels. As the national umbrella organisation, the DMSB is a member of both the FIA (Fédération Internationale de l'Automobile) and the FIM (Fédération Internationale de Motocyclisme), as well as the DOSB (German Olympic Sports Confederation).



"In order to achieve widespread acceptance in society, motorsport must become lower in emissions, more sustainable, and more economical. This project is revolutionary, unique, pioneering, innovative and sustainable at the same time. It will be a completely new type of motorsport. Every parameter is being reinvented. The combination of the virtual world with the real world is a special feature. And the technology is also extraordinary. Hydrogen technology in a car is one topic, but we are by no means stopping there. We are developing a racing series, in which the overall package will be sustainable."



**ULRICH
FRITZ**

CEO der HWA

HWA AG is an independent, 360 engineering specialist in the fields of automobile racing and high-performance cars. Formed in 1998 by Hans Werner Aufrecht, the company's objective is to develop the best possible high-quality solutions, in order to get its partners and customers to their destination quicker. The portfolio of services ranges from designing all vehicle components to assembling complete cars, together with the relevant logistics, after-sales and support services.

SCHAEFFLER



"The involvement in this new series is the perfect fit for Schaeffler. For a long time, we have been focussing very successfully on innovative electric drive systems, which meet the extremely high demands on performance and efficiency in motorsport and series applications. We are also using our traditional core areas of expertise to develop key components for fuel cells. Electrified motor racing with hydrogen technology is ambitious but absolutely realistic, and could herald a new era of motorsport. The opportunity to be actively involved in developing this car concept from the word go, and to contribute with our innovative technologies, is too good to miss."



**DR. JOCHEN
SCHRÖDER**

Head of E-Mobility at Schaeffler

The Schaeffler Group is a leading global automotive and industrial supplier. The portfolio includes drivetrain and chassis components and systems, as well as roller and engine bearing solutions for a host of industrial applications. With innovative and sustainable technology in the fields of electromobility, digitalisation and industry 4.0, Schaeffler is already making a vital contribution to "mobility for tomorrow". With roughly 84,200 employees, Schaeffler is one of the world's largest family companies and, with roughly 170 locations in over 50 countries, has a global network of production sites, research and development facilities, and distribution companies. With just short of 2,400 patent applications in 2019, Schaeffler is second in the DPMA (German Patent and Trade Mark Office) list of the most innovative companies in Germany.



"Esports have become a booming global phenomenon in recent years. Whether on PC, console or mobile, the young generation is playing all types of games as a means of recreation, but also in professionally organised Esports leagues and events. Combining this digital community with the real world of sustainable motorsport in the HYRAZE League creates a platform, on which people can experience the latest mega-trends via sport. The WESA has been supporting the HYRAZE League from the outset, in order to ensure that the basic rules of both sporting worlds are ideally aligned and to lay the foundations for fair and captivating sport."



**DR. PIETRO
GRAF FRINGUELLI**

Executive Chairman and
Commissioner WESA

The World eSports Association is an association initiated by professional Esports teams and major Esports organisers. Like associations in classic sports, the WESA works together with its members on regulations, team and player representation, and fair revenue distribution, in order to ensure a sustainable growth of Esports.



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