THE FUTURE OF DAKAR

INTERVIEW WITH GERARD DE ROOY – OWNER PETRONAS TEAM DE ROOY IVECO

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2022 has kicked-off with yet another challenging edition of the legendary Dakar rally. Having travelled three continents since the inaugural race in 1978, the so-called 'monster' rally took place for the 3rd year in a row in Saudi-Arabia. Besides the well-known gruelling stages for both teams and equipment, the rally also stands for magnificent scenery, solidarity and the extraordinary skills of drivers, navigators and mechanics.

Since its start, Dakar has been gathering the top of rally raid riders and drivers and providing a 'dream come true' experience to adventurers of all kinds ready to conquer the desert and the unexpected. This year the first full electric vehicles have made their appearance. In line with its extensive energy transition ambition, organiser ASO is introducing a brand T1-U (T1 Ultimate) category for prototypes running on low-carbon fuels.

Today we talk to Gerard de Rooy, team owner of the legendary PETRONAS Team de Rooy IVECO team and one of the established driving forces when it comes to pioneering new technologies and testing within the Dakar arena.

What will the future of Dakar look like?

Equal to the overall sustainable transition in the automotive and transportation industry, we see motorsports being an innovation lab for alternative drivetrains. When a technology can cope with the extreme conditions of Dakar, daily fleet operations can benefit from these high-performance attributes.

In the next 10 years, I expect an energy transition and a big leap towards low carbon vehicles to happen. With the investments made by the teams and their development partners, Dakar and local support organisations, things will accelerate. I expect it to be a gradual transition from hybrid trucks to first full electric and hydrogen trucks and beyond in the next phase. Technologies will continue to evolve fast and the standard we see today won't be the reference-point for low emission vehicles of the future.

How is your team preparing for this transition to low emission vehicles?
Within our team we have started the development of a full electric truck in 2022, however with the current supply issues in the automotive industry, the introduction is postponed to 2023. We will start testing the EV this summer to further finetune technologies and determine final engine and vehicle set-up with our development partners.
I'm a strong believer in alternative drivetrains and low emission racing. Within Team de Rooy, we are always eager to discover new tracks and push the boundaries towards extraordinary performance and to go greener. However, for me it doesn't stop with the introduction of new alternative innovative technologies in the trucks. We need to see the full picture. This includes low emission assistance vehicles and alternative energy supply in the bivouac (e.g. solar panels, alternative energy generators, ...) moving forward.

What do you see as potential blockers to going green?
We already see hybrid and even full electric vehicles as of today. The technology is there, but before it is fully accessible to all teams in Dakar it will take another 5, maybe up to 7 years.

When it comes to electricity, the biggest challenges are the range and cooling of different components caused by the loading/ unloading of energy. Especially in hard-core rally raids like Dakar, both are of capital importance.

There is still work to be done. Today new drivetrain technologies are incorporated in traditional trucks and range extenders are added to be able to race 400 KM a day. Hydrogen might not be totally feasible for full racing, however, it can be an option for the service trucks. Moving forward, teams need to find a good balance between innovation, high-end performance, endurance and a low carbon footprint.

Will we see a different way of racing?
Going full throttle with an electric vehicle is a given, however energy consumption needs to be very well managed. The standard range of an EV is 100 -200 KM under road use conditions. You can't recharge in the middle of the desert, so we need to balance the performance and spread the power usage. Having full engine potential within seconds also requires adapted driving skills, especially in tricky rock track conditions and a landscape with dunes as high as skyscrapers.

We also need to start thinking differently on the development side, for instance: How can we get to 500 or even 800km with one battery load? What role can the different components and data-intelligence play? Or look into an alternative competition set-up with quick charging stops during the race? Supporting infrastructure, be it fast charging, hydrogen or other alternative energy hubs are key here and requires investments beyond the teams and ASO Dakar organisation.

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Is there any game changing technology?
It is not yet clear what the standard of the future will be... LNG, full electric engine, electric axle technology, hydrogen, ammonia...? New technologies are still in development and more will arise in the coming years. What might be the standard 10 years from now, might not yet exist today.

It's a journey requiring investments of all parties and I see a strong willingness to do so. As Team de Rooy we are ready to go the extra green mile, daring to try new things, however it still involves a lot of testing to get to the performance and mileage levels we want.

Go green, go further, go faster... mission impossible?
Dakar is all about discovering unbeaten paths, accepting new challenges. Setting new standards is part of the winning spirit, as is moving towards a greener future.

I strongly believe that, together with the right supporting partners on the ground and behind the teams, we will get there. New innovations are on their way and Dakar is the ultimate innovation lab. If it works in Dakar, chances are high it will work pretty much everywhere.

Goodyear and team de Rooy are longstanding development partners. Both share the same aspiration to drive results and support sustainable operations in racing and beyond. The experience of extreme situations in motorsport like the Dakar rally and the FIA European Truck Racing Championship complements Goodyear's on-road, test track, simulation and laboratory research and testing. The tyre data gathered from extreme race conditions enables the engineering team to develop new innovative tread and carcass technologies combining both low rolling resistance and durability for advanced on-road performance.

ASO, organiser of Dakar, regulates all participating vehicles drive on standard tyre types that are also available for sale to the general public. To survive tricky tracks littered with sharp stones and rocks as well as to conquer sandy, massive dunes, team de Rooy has selected the Goodyear OFFROAD range as its trusted companion. Developed for extensive use in construction and emergency applications, its tread rubber and design is made to resist cutting and chunking in harsh off-road operations and, at the same time, is capable of cool running in high temperatures.

Taking a deep dive into electric vehicles and tyre development, a very specific set of requirements for load, torque, noise, range, rolling resistance and overall performance have to be taken into account. The company's 'electric-drive-ready' portfolio is supporting leading passenger, light commercial and heavy commercial vehicle manufactures, fleets and end-consumers.

Goodyear's future vision of a next-generation tyre for EVs is the "Recharge": a non-pneumatic design that features a self-regenerating tread based on the use of biodegradable liquid.
Both development partners believe in a future powered by new technologies, with a vision of sustainability, new smart mobility and advanced motorsport experiences. More to come!