

FOUR MOTORS

Bioconcept-Car 



*The green pioneers
on the racetrack*

**ALL THE EXCITING FACTS
TO COLLECT!**



A competitive racing car

Since 2006, the Four Motors motorsport team has pioneered racing using a car whose body is made from renewable raw materials. Its diesel engine is one of the most powerful in the world and is powered by Flowerpower biodiesel:

Engine size	1.969 ccm	0 to 100 km/h	in 5 seconds
Output	280 hp	Torque	500 Nm
Top Speed	245 km/h	Transmission	5 gears
Length	4,77 m	Weight	1.170 kg
Width	1,88 m	Rims	BBS
Height	1,30 m	Chassis	Porsche GT
Wheelbase	2,72 m	Shocks	Bilstein



The next generation

In cooperation with Renault, the team presented the new BC Mégane Trophy in 2009. The multi-piece body has been replaced by 3rd generation bio-fiber components. In the tank: a B30-mix (30% organic, 70% fossil diesel). And the mid-engine really turns the car into a dynamic racing machine:

Engine size	1.995 ccm	0 to 100 km/h	in 5 seconds
Output	243 hp	Torque	410 Nm
Top Speed	235 km/h	Transmission	6-Gang
Length	4,37 m	Weight	ca. 1000 kg
Width	1,90 m	Rims	BF Goodrich
Height	1,24 m	Chassis	Renault Sport
Wheelbase	2,62 m	Shocks	Sachs

03 *The Bioconcept Scirocco 2.0l TDI*



The Bio-Rocco

An efficient TDI engine and a newly developed, low-emission rapeseed biodiesel makes this car a real "Mr. Clean". Successively, parts of the body and other components are being made from bio-based materials.

Engine size	1.964 ccm	0 to 100 km/h	in 6 Sek.
Output	235 PS	Torque	420 Nm
Top Speed	230 km/h	Transmission	6-Gang
Length	4,25 m	Weight	ca. 1100 kg
Width	1,81 m	Rims	Dunlop
Height	1,40 m	Chassis	KW
Wheelbase	2,57 m	Shocks	Moton



Hip hop star and green pioneer

For the frontman of the band "Die Fantastischen Vier", renewable energy is no dream of the future, but rather the basis of his commitment to motorsport. It was through this commitment that the green wave has arrived in motorsport.

It all began quite by chance when a passion for virtual racing on the computer turned into a passion for real motorsport. Smudo has been racing for the Four Motors Team since 2003 on the most challenging racetrack in the world – the Nürburgring. Right from the start he was looking to answer the question how motorsport can find its way into the future. He found the answer in sustainable mobility. That's why Smudo and Four Motors make up a unique team.



Sustainability is the future

Four Motors is the first racing team in Germany that has made sustainable mobility into its specialty. The green pioneers have brought biofuels and bio-materials to motorsport. Parts of the body of the current BioConcept car consist of a lightweight composite, reinforced with flax and hemp fiber.

The low-weight, biologically based material is an excellent alternative to the glass and carbon fibers commonly used in lightweight construction. Other components (e.g. lamp housings, parts of the instrument panel) are made from bio-based plastics which also have to pass the endurance test of the Nürburgring in the BioConcept car.



Impetus for series production

The development of bio-materials for the BioConcept car is funded with the aid of the Federal Ministry of Food, Agriculture and Consumer Protection through its project management organization, the Agency for Renewable Resources. In cooperation with the Hanover University, biomaterials are optimized for their use in the car and for production in reproducible processes on an industrial scale.

The aim is, among other things, to reduce vehicle weight by using renewable resources and thus provide practical solutions for series production in the future. For low-weight construction will be of paramount importance in future vehicle generations in order to compensate the battery weight of hybrid and electric cars, for instance.



Innovative biofuel

The Bio-Rocco is powered with “Rmax”. This innovative biofuel-mix consists of 50 % Rapeseed Methyl Ester (RME Biodiesel), as added with up to 7 % to regular Diesel in compliance with DIN EN 590, and 50 % Hydrotreated Vegetable Oil (HVO) from Neste Oil Finland.

For use in racing sports both components are produced entirely from sustainably-produced rapeseed oil with the support of the Union for the Promotion of Oil and Protein Plants (UFOP).

08 *Four Motors*



Ideas on the move

Former DTM driver Thomas von Löwis of Menar manages Four Motors' BioConcept car project with its specialization on renewable energy and resources. The expert for biofuels developed the GT RTD unit, and he is always on the lookout for innovative technologies and ideas for sustainable mobility.

To this end, the Reutlingen-based company forges links between ambitious project teams from many different areas, working together with researchers, developers and manufacturers. Four Motors is supported by partners dedicated to developing both innovative as well as unconventional strategies.

FOUR MOTORS GMBH

Schulstraße 18

72764 Reutlingen

Tel: +49 (0)7121.14490.70

www.fourmotors.com

www.facebook.com/fourmotors

www.twitter.com/bioconceptcar