



Words: Adrian Dawson Images: Supercars Ltd

Welcome to the not so glorious life of a journalist. Here I am in my office, fingers poised but the brain a gearbox full of neutrals, trying to select a gear to get this story rolling. No amount of rubbing the genie oil can this time can create quite the introduction I was after.

One version went like:

Around the workshop hangs a quote by George Bernard Shaw, which perhaps sums up this project:

*Some men see things as they are and say, Why?
I dream of things that never were and say, Why not?*

Another:

Area 52. New Zealand has become Area 52. Over the past few years there have been some very secret goings on here in Middle Earth. Here we reveal some exclusive details on

a true super car to take on the world, being built right here, under our noses. I use the word super car in every sense of the word.

Or:

Enter the Hulme.F1Champion1967, bit of a mouthful, but the next Kiwi to fly. Named after Denny Hulme, Formula 1 champion. There are eight New Zealanders who have raced Formula 1 and if Scott Dixon gets his chance, it'll be nine. Buy this car and we might get the count to nine and a wincey bit.

However, on reflection, each of those introductions is perfectly valid, each of them perfectly describes the different facets of this very exciting project.

I met Jock, the projects spokesman in an Auckland café one morning to hear all about this still fairly secretive project, the Hulme.F1Champion1967, for that is the full and correct name of this car. Besides, seeing the car would have been almost impossible. The body was in Auckland, the engine and chassis in Palmerston, the wheels somewhere in a customs warehouse.

The car

I'll start with what you don't get. No computer adjusted seats that heat up at the push of a button, no latest multi-disc stereo, no raft of computers controlling traction, if you want these things, you're barking up the wrong dream.

What you get is a metal spaceframe skinned

in a carbon and Kevlar body. This could be the closest thing to a road going Formula 1 car. Sure the Ferrari F50 had its Formula 1 engine and suspension, but this car takes the concept to another level. You get a car with an air-box, side pods, half body, exposed front tires and suspension and a height of just 1,095mm (is the only thing missing from the 'Formula' theme the sponsor's logos?) There are no overhead photos, but I think we'll find it looks like two Formula 1 cars joined at the hip.

So who will buy a ground breaking sports car from a manufacture that doesn't yet have the pedigree of some famous European marquees. The target market is above the Ferraris, but below the likes of the Zonda. In

Porsche words; somewhere between the GT3 and Carrera GT. For those of you who read the article on the Porsche 962 that's recently been completed, this car will be finished to the same high standard, by many of the same craftsmen.

Supercars NZ have brought together some first class partners, the list reads like a who's-who of suppliers. The 6-speed sequential transaxle is a specially designed unit by Quaife, AP Racing supply the brakes, Bosch the ABS and Siemens the air-bag system.

After the team had settled on the design, the rest of the project was relatively simple. Coming up with the cars shape was a long and carefully thought out exercise. Why the Formula 1 like shape? One of the challenges



Hulme. F1 Champion 1967

the project faced was to come up with a shape that was instantly recognisable. One that was different to the other super cars, which when viewed through the bottom of a thick beer glass seem to look like they've come from the same jelly mould. What we have here is something so different, it stands out like the dogs preverbal. The design team had over 15 concept shapes on the table and realised that to succeed it would have to be a different shape and something new.

After the shape came the name. Allen Dick (Driver magazine) was the person to suggest the name, which has been followed through and approved with the Hulme family. Turns out Allen and Jock have known each other for a while, since '69 in fact, a good year according to a lot of the songs, I can't remember – a function of age rather than mind.

The name captures both the Formula 1 nature of the car and its Kiwi heritage. Back in '69, Jock was racing the first BMW 2002 in the country. Having this relationship with BMW for so long and that many of the people involved at this time (who now hold influential positions within our car industry) was key to being able to secure the M5 engine through BMW New Zealand. That's not to say there weren't other engine suppliers keen to do a deal.

The body is a combination of carbon fibre and Kevlar and the first two cars will be destroyed in the interests of safety, certification and crash testing. This level of assuredness is something the team says is vital.

Underneath and around the car are race

car bred aerodynamics. The sketches you see here haven't been published before. As you can see, it's the 'real deal', front and rear wings, front splitter, rear diffuser, side skirts and an undertray which is sloped and smooth.

Moving inside will be through doors which are of a gull-wing nature. The specially designed Recaro seats complete with electric lumbar support place your nether regions just 180mm from the ground.

Behind you is the engine. This is the BMW M5 V8 unit. We know what the standard output figures are, but Kevin MacLeod who we met in the 962 article and Ernst will simply not be able to resist having a tinker with the engine, I wouldn't be surprised if they can't find ways of increasing its performance further. Real Formula 1 cars must have a ground clearance of at least 50mm, absurd for the road, the Hulme's sump is just 140mm off the deck, no off-roading in this!

From what I could gather from Jock and then by doing some research, getting the M5 power plant is something of a coup. The only other manufacturer I could find using the M5 V8 is Anglo-Scottish Car Industries (Ascari). Given the high profile and calibre of the Ascari project and the rumours they've gone through about \$10 million of 'wedge' again shows the league the Hulme is in.

The stopping department comes via the largest brakes fitted to a production car. A.P. Racing is supplying massive, read MASSIVE six pot callipers on huge 362mm discs.

Forward motion is transferred through a specially designed Quaife 6 speed sequential transaxle to equally special rubber, Pirelli P Zeros. The rubber circles (read thin black lines) enclose 19" and 20" rear wheels. These wheels come from the 'States' and being forged are very light, just 13Kg for the rears.

Soaking up the bumps or more likely holding the rear end to the black stuff is an original suspension design. This consists of double wishbones front and rear. The front is pushrod actuated to the inboard coil over dampers – again, just as on a Formula 1 car and being exposed, you'll be able to see some of it. Mum's the word, but you'll also see something never seen on a production car before.

Fancy a trip to the shops or using it as a GT in the true meaning of the word? No problem, plenty of space to put the bread, milk and golf sticks (if you go by yourself). There is some storage in the nose, the side pods, a glove box, space behind the seats and in the rear of the car. No large cavernous spaces, but with careful packing and the custom made luggage (rather McLaren F1 like), you should have some very successful turismos.

While I was probing around on luggage space and looking at the sketches, I asked Jock about the cars cooling system and radiators, not being able to see how it all fits together. After receiving a big 'mums the word' grin from him, I was told they've made some breakthroughs on cooling and that this system will be unique.



Want to guess what one of the biggest hurdles still remaining is for the team? And I'm serious. Where do you put the front number plate? My suggestion of a hologram projector was not exactly leapt upon.

Now, saving the best for last – will it be quick? Well I can't say for sure (having not been in it), but some sums on the back of the beer coaster would suggest the answer is yes. The car is almost half the weight of the M5 its engine comes from, has less frontal area and will have at least the same amount of power. The brakes are ample, the aero kit should ensure your flying is done with wheels on the ground.

I hope that unleashing it is like pressing the plunger on a detonator. I hope that unless you feed in the power and treat it with respect, expect to be bitten. I hope for a road going Formula 1 GP car with less compromises than the F50.

Expect a car that will perform like a rocket; with a mass under 1,200kg, the nudge from behind is over 450HP, you'll be peddling at over 300 km/h.

The partners

Quaife, A.P. Racing, BMW, Recao are some of high profile suppliers to the project. This is a true collaboration with all the suppliers, we're not talking about buying stuff off the shelf, some of these suppliers such as Recaro and Quaife are making components specially for the project. Partnering with

these experienced suppliers has saved the project having to learn many of the hard lessons (and saved money).

These international, well known, and respected suppliers add quality and credibility to the project. The detailed list is a who's-who. Companies involved in the design, development, supply and certification include:

- *Bosch, Germany, for the ABS*
- *Siemens, Germany, for the air bag/restraint systems*
- *A.P. Racing, UK, for brakes*
- *Motec, Australia, for the engine management*
- *Hella New Zealand, for the lights*
- *HRE Wheels, USA, for the wheels*
- *Recaro, Germany for the seats.*

Where certification isn't a requirement:

- *BMW New Zealand are supplying the 5 litre M5V8 engine*
- *Mazda New Zealand have offered their full assistance in identifying and supplying any parts required*
- *Quaife Engineering, UK, for the six speed transaxle*
- *Koni, New Zealand, for the shock absorbers*
- *Pirelli, Italy with the help of Pirelli Australia and Pirelli UK for the black circles.*

The cockpit visit

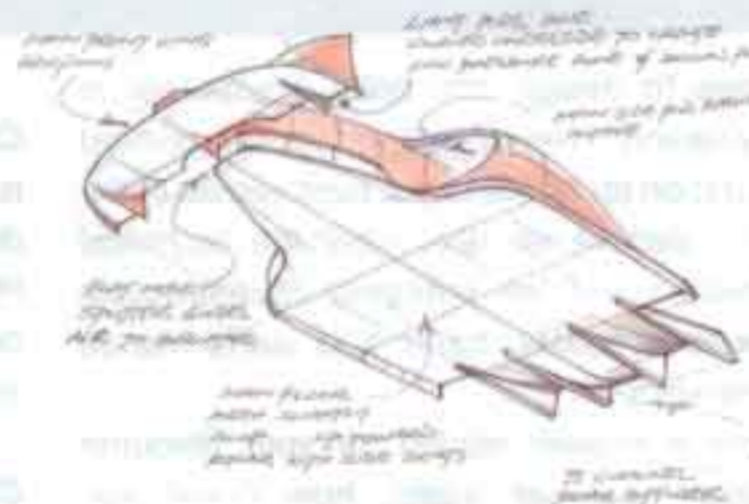
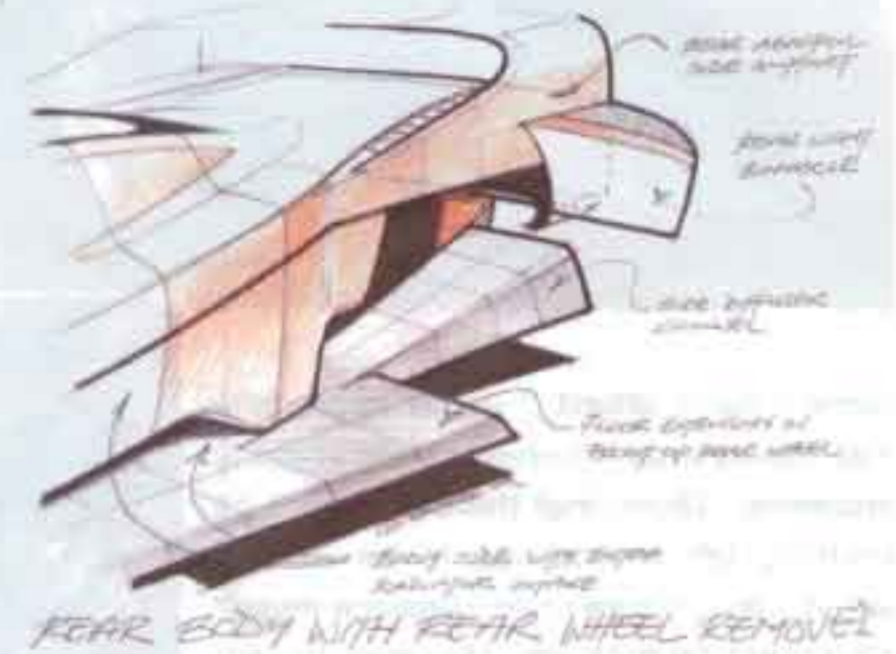
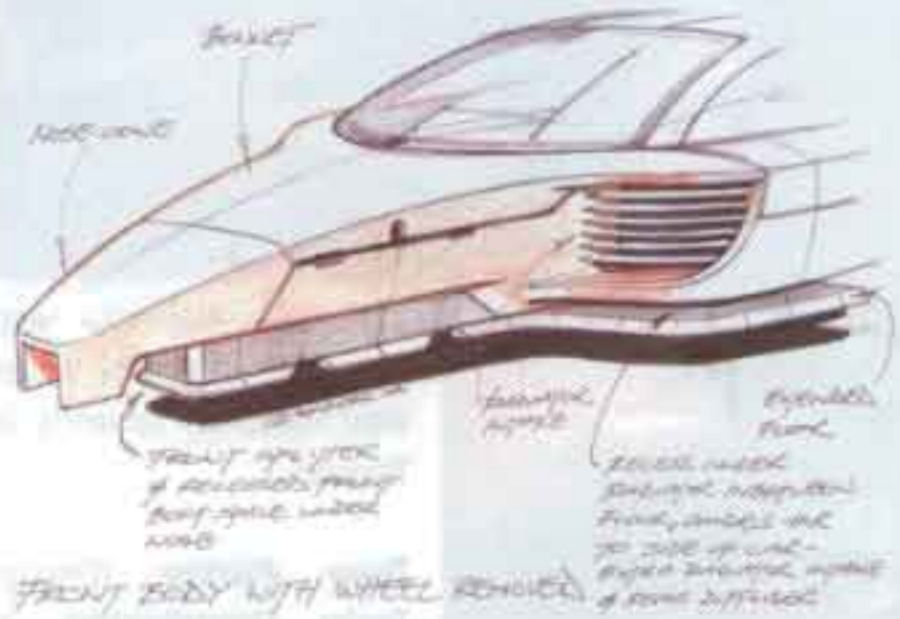
After my café meeting, an offer was extended to call by the Auckland workshop sometime to have a look at the first body being laminated and to sit in the cockpit mock-up. Being your dedicated reporter (and plain not being able to pass up such an opportunity), I went along with my camera one morning. For reasons of security the camera stayed in its case, so I'll tell you what the camera can't.

I saw one of the bodies being laminated, it's long, it's low and it's exciting. Without wheels, suspension and appendages the car appeared even longer, but as you can see from some of the artwork, it really is a well balanced car. The sketches we've printed are the 'real' car. By this I mean that Tony has sketched over some of the recent photos the team has taken of the actual body and added the wheels and wings.

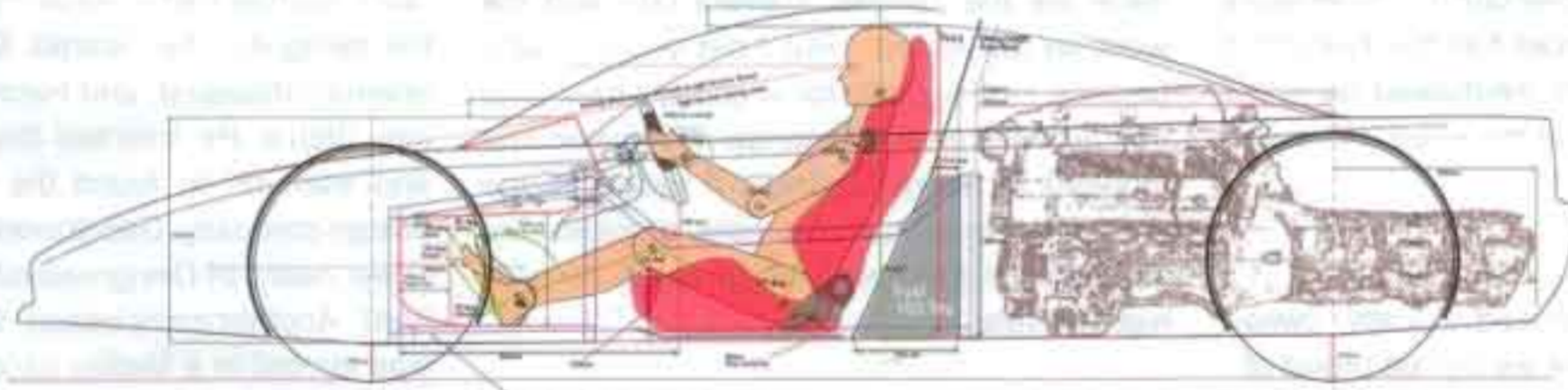
I sat in the cockpit mock-up. The seating position is performance orientated. The seat is lower than the raised floor which the pedals are mounted on. The digital instrument readout will move with the steering wheel as it is adjusted. It's a practical way to grasp the racing car feel of the digital readout on the steering wheel. Single seat race car similarities don't end there either, just below your line of sight is the exposed tyre. The tops of the tyres being almost level with your shoulder. As for where the nose of the car ends, well that's a judgement call.

After spending a few minutes seated in a

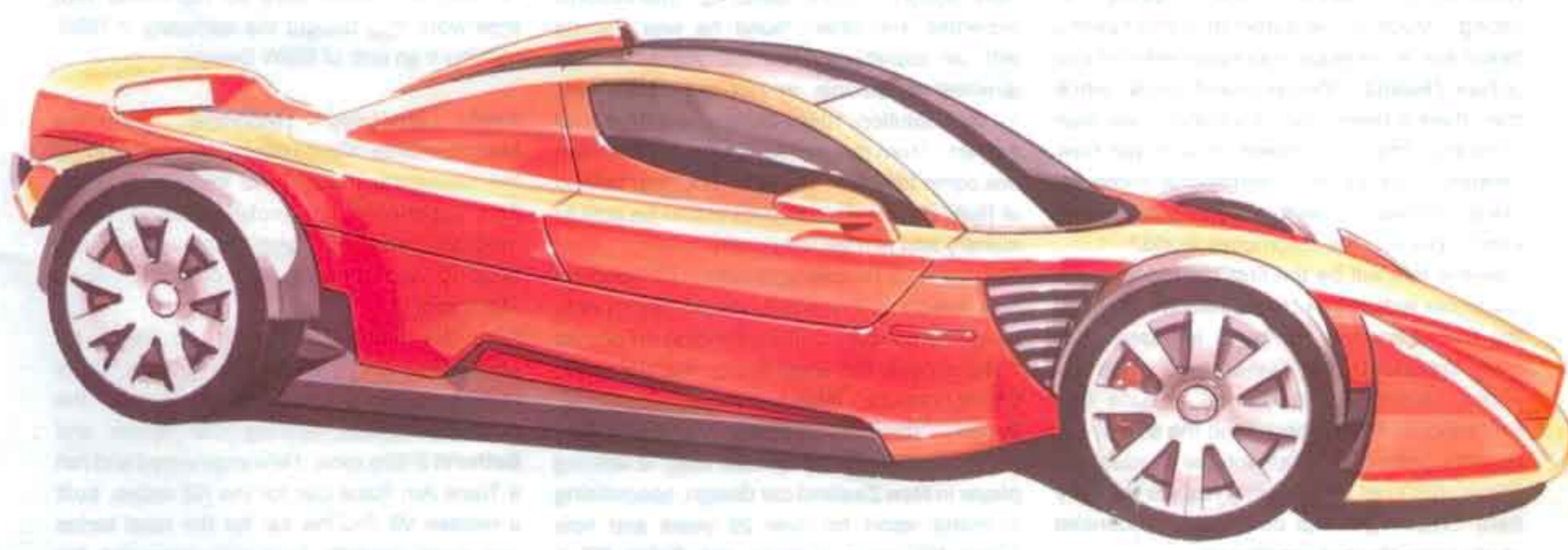
Technical Sketches



VIEW OF INTERIOR



90th Percentile Male	Height: 189.5cm
	Leg length: 100.5cm
	Arm length to knuckles: 55.5cm





home I can't afford, I could appreciate that seeing what is behind poses visibility problems. Given that there shouldn't be anything left behind you to be worried about, I'm not sure I can convince myself it's a practical problem. However, the car will have a clever camera system for rear visibility. In addition to the traditional wing mirrors, you'll be able to push a button on the steering wheel and get extended rear and wing views via cameras. This will be displayed in the rear view mirror.

Due to the lack of TV, remote and beer I had to remove myself from the comfortable Recaros. Before leaving I helped get the wheels which had just cleared customs and tyres into a car. They were to be taken away to find a stationary orbit around each other. Until you've every carried a tyre of that size, I don't think you can appreciate the dimensions involved. I have to wonder if all four tyres from our family car could be swallowed up in the galaxy that is just one of the Pirelli 315 x 35 x 20 tyres I was holding.

Our backyard

This is a privately funded, locally owned project in Godzone, one we can be proud of. Jock says "Forty years ago New Zealand was a driving force in international motor racing. We had three New Zealanders, Bruce McLaren, Denis Hulme and Chris Amon in top Formula 1 teams, and the McLaren's were dominating American CanAm sports car racing. Much of the automotive engineering talent and knowledge was exported and lost to New Zealand in the 1960s and 1970s. Since then there's been a bit of a hiatus. We plan to change that. Our intension is to put New Zealand back on the international motoring stage. We want to restore New Zealand to its rightful place in the automotive world."

I believe this will be the first car to kick off a super car industry in New Zealand. Perhaps the timing is right, our costs are lower, but more importantly the Kiwi attitude is the key - the innovation, the can do attitude (the professional #8 approach) and the size of our country geared to small volume production. Close your eyes imagine it, a real car industry here. Think how that could have influenced your career choices growing up.

Tony Parker's dream, since he was five years

old, was to design and build a supercar in New Zealand. "New Zealand has established a reputation for building the best yachts in the world. I believe we also have the technical capabilities and the industrial infrastructure to create a quality, hand built performance car," he says.

Call me a broken record (or your favourite journalist), but yet again, how could you achieve a car like this, with so many innovations anywhere else in the world? Yes there are the Zondas, Carrera GTs and the work on the Ascari. But I bet you my bank balance (not enough for a solitary new tyre) that all these cars took longer to develop and required far more funding. It seems to me that each local success here provides the platform for the next one to reach to even higher levels.

The team

Jock Freemantle (Director/Project Coordinator) is one of the key people to bring this consortium together. Due to the calibre of the concept the best people in every area were sought. Jock called on international expertise and often found he was dealing with an expatriate New Zealander, or was directed to people in our own backyard. Perfect solution, Kiwis being used on a Kiwi project. From this rich pool of talent the team has come together. Being an engineer trained at Rolls Royce you'd expect him to be able to identify and aim for top quality.

The team of people assembled included no less that six ex-Formula 1 people, appropriate given the concept of the car being a Formula 1 like experience. Even the ex-manger of the Stuart Formula 1 team is involved.

Bruce Turnbull (Technical and Pre-Production Engineering) has been a leading player in New Zealand car design, specialising in motor sport for over 25 years and now builds his latest designs, the Saker GT & Sprint. The Saker has been developed into an international class with cars racing in Europe,

the US, Australia and New Zealand. The Saker was featured recently in Tarmac.

Tony Parker (Design Team Coordinator), is an Associate Professor in Industrial Design at Massey University's

College of Design Fine Art and Music and is one of our countries leading industrial designers.

He describes his role as conceptualiser and designer. "We are creating the illusion that you are driving a F1 car on the road." he says.

Charles (Chuck) Pelly (Overall Design Consultant) and 'Honorary Kiwi' is acting as overall design consultant. Never heard of him? Neither had I. Allow me a quick lesson. He designed the Scarab Sports Cars, the original Chaparral, and Formula 1 cars in the late 1950's. He invented the original go-kart and went on to found the world-renowned design company, DesignworksUSA.

Never heard of DesignworksUSA, well neither had I. Another quick lesson. DesignworksUSA was started in a Malibu garage in 1972, born out of Southern California's design and car culture. It grew to become internationally recognised as one of the top design consultancies.

The company first attracted BMW as a client in 1986 and BMW were so impressed with their work they bought the company in 1995, making it an arm of BMW Design.

Kevin MacLeod (Technical Team & Manufacturing Coordinator) has worked in the racing car industry for almost 25 years. This experience has included being senior mechanic for the Tyrell Formula 1 team, building and running rally cars for Allport Motorsport.

After his time with Allport he setup K2 Motorsport and has built Targa cars, BMW touring cars for New Zealand and the Australian 2-litre Touring Car series and Bathurst 2-litre race. He's engineered and ran a Trans Am Race Car for the NZ series, built a Holden V8 Touring car for the local series and most recently built and promoted the Porsche 962 Le mans sports car.

Wayne Smith (Composite Engineering Team) has been around fibreglass, carbon and Kevlar composites for a while. He has many notable projects under his belt of experience. These include:

- *GP Hydroplane Powerboat, 'Boss - Mobil One'*
- *An 87 metre multi hull motor yacht, 'Proa 2000'*
- *Various composite design projects for leading mast builders, Southern Spars*
- *America's Cup : 1995 and 2000 - Team New Zealand*
- *America's Cup : 2003 - One World Challenge.*

Where to next?

Other than being very bright, the future holds some exciting intentions for future models. After the initial 2-seat closed GT, BMW M5 V8, 450HP we see here there is planned an equally exciting line-up of successors. Next on the list is a 2-seat side-by-side, street legal F1 type car, then a closed Super GT and finally an open car, soft-top variant. I know a few more very juicy details beyond these, but 'mums' the word.

So if you like what you see and you've checked it with the bank manager and the misses (probably not in that order), in 2005 production will be ramping up to 10-15 cars, then 50-75 in '06 and then 100 per year after than. It's expected a minimum of 350 cars will be built. Many people have told the team that if it is built to the standard proposed, to the price indicated, that they'll sell as many cars as they can build.

Even though we are only months away from the launch, the tight security remains in-

place and many technical details are yet to be revealed. Fortunately or un-fortunately I know a lot more about that car than we can print. It means I can confirm that this is a really exciting project. It means that there is more to be revealed. It means that you can look forward to more details in the future.

You can be sure when the car is launched later this year, like a hitch-hiker on methanol I'll be there with my thumb out and of course Tarmac will cover the launch for you.

The New Zealand public will get to see the car here before its international debut (see you at Big Boys Toys). The international circuit next year will initially consist of some high profile shows: Geneva, England and China. With the certification program (crash testing etc), they will be able to sell the car anywhere in the world except for North America, hence no American car show.

As we've seen in recent issues with the S40, 962 and now this car, we have the skills to handcraft great cars here. Kiwis continue to be loved in the top levels international motorsport and they continue to return home to their roots and continue to practice their craft. Supercars New Zealand Limited has proved without a doubt that these skills can be harnessed. Do not be the least bit surprised if the benefits to our county from this project are still being felt many decades from now.

Having had the opportunity to drive a Formula 1 car at speed, I look forward to comparing this road going incarnation to my previous experience.

For more info. see www.supercarsnz.com

THIS KIWI WILL FLY. TM

Hulme.F1 Champion 1967 Specifications

Engine & Transmission	
Position	Mid longitudinal
Configuration	BMW M5 V8
Valve train	DOHC 4 valves/Cyl
Displacement	4,941 cc
Power	450 HP
Redline	7,000
Gear Box	Quaife transaxle with LSD
Gear Type	6 speed sequential
Body & Chassis	
Curb Weight	1,175 Kg
Length	4,612 mm
Width	1,958 mm
Height	1,095 mm
Wheelbase	2,830 mm
Front Track	1,665 mm
Rear Track	1,605 mm
Steering	Progressive power assisted steering
Chassis	Tubular & composite construction
Body	Carbon fibre & composite construction
Airbags	Driver's wheel & passenger
At the corners	
Front Brakes	AP Racing 6 piston callipers + Bosch ABS
Front Disc Size	AP Racing 362 mm x 32 mm ventilated
Front Wheels	8.5 x 19"
Front Tyres	245 x 40 x 19 Pirelli P.Zerro Rosso
Front Suspension	Double wishbone & pushrod
	Inboard coil over damper & anti-roll bar
Rear Brakes	AP Racing 6 piston callipers + Bosch ABS
Rear Disc Size	AP Racing 362 mm x 32 mm ventilated
Rear Wheels	11 x 20"
Rear Tyres	315 x 35 x 20 Pirelli P.Zerro Rosso
Rear Suspension	Double wishbone
	Coil over damper & anti-roll bar

Who was Denis Hulme

Who was Denis Hulme? Denny is to date our only Formula 1 World Champion, taking the title in 1967 in a Brabham. Second that year was his team-mate and boss Jack Brabham, just five points behind.

He grew-up a country kid from Te Puke and drove the trucks in his Dads transport business. Perhaps the country kid lifestyle gave us his trademark bare foot driving early on. Somewhere else in the mix was his grit and determination, along with a short temperament. This temperament lead to a lack of favour with the media and nick name of 'The Bear'.

He started competing in an MG, experiencing success and being 'bitten by the bug' like any racer he moved into more dedicated race cars. In the early 60's the same group who helped Bruce McLaren get his career started on the international stage did the same for Denny. He didn't find it easy, at times having to live out of his car between races.

He climbed from Formula 3 to debut at the top rung in 1966, being crowned champion the following year. I expect the local lads stuck together and this lead to him driving McLaren sports cars in the CanAm (Canadian-American) Series. Success and respect then lead Denny moving to the McLaren Formula 1 team. Formula 1 trophies where hard to come by with McLaren, however 'The Bruce and Denny Show' were dominant in the CanAm series between 1966 and 1972.

All this racing took place before safety had the emphasis it does now. Denny lived through Bruce being killed during testing. He retired from racing in 1974 when he saw the fatal crash which claimed the life of his team mate. He helped rescuers at the crash scene and admitted years later that his mind went blank after the crash and his next memory was standing in the shower at his hotel watching blood flush down the drain.

Having taken the time out to deal with the grief and his emotions, he returned to something that was in his blood. He raced trucks, sports cars and tin-tops for many, many years. He is no longer with us, he died as perhaps any racer would love to, of a heart attack behind the wheel. I still remember seeing it on TV, the Bathurst race in 1992, on Gon Rod Straight his car slowed and rolled off to the right-hand side of the track.