

Driving a hard bargain

As harsh economic realities begin to bite even Formula 1, companies are coming up with cheaper engineering alternatives to keep the show on the road. Will the teams listen? **Ben Hargreaves** reports

With its glamorous lifestyles of top drivers and billionaire motorsport figureheads such as Bernie Ecclestone, Formula One goes together with penny-pinching about as harmoniously as Max Mosley and the *News of the World*, you might suggest.

In an age where sport is big business, the extravagance of F1 is perhaps no more unseemly than that of, say, the Premier League. And yet there are signs that after a period of soaring budgets, F1 is running up against the barriers of a new era: one of austerity, prudence and cutbacks.

The decision by Honda to withdraw from the sport last year sent shockwaves through the industry at a time when automotive companies were enduring their worst slump since the Second World War. For Mosley, the embattled president of FIA, F1's governing body, Honda's move demonstrated something he had been warning the teams about since the summer of last year: the championship was "unsustainable".

Just last week, BMW became the latest manufacturer to slam on the brakes, announcing plans to exit the sport with the sale of



School of economics: Composites maker EPM (above) expects to double F1 business; Force India (right) performed well despite a relatively small budget

its Sauber team to a Swiss firm, Qadback Investments. The team expects to compete next season but will only do so if other teams withdraw or, alternatively, the championship is expanded to include 14 teams, which the FIA will recommend.

The governing body has been embroiled in a dispute this summer with the Formula One Teams' Association (FOTA), which represents leaders such as Brawn, Ferrari and McLaren, and which threatened to set up a breakaway championship in June. The reason was proposed caps to team budgets although FOTA, which counts eight teams among its members, has claimed in correspondence with the FIA that it is committed to cost-cutting.

Mosley will stand down next month, having reportedly tired of

trying to get F1 teams to clamp down on their expenditure. Proposals put forward a year ago by the FIA outlined plans for a low-cost – £5.5 million – engine and transmission to be developed by Cosworth, automotive consultancy Ricardo and transmission specialist Xtrac. As it turns out, Cosworth will supply three teams on the grid next year – but independently, with an updated engine that was first raced in 2006 by Williams. The FIA maintains: "If we wish to see innovative technology in Formula One, the only way is to limit expenditure and allow the engineers freedom to do their best within a fixed budget."

This point is echoed by an industry veteran who hopes to see his own technology on F1 cars come the new season. Jon Hilton, the former technical

director at Renault and a fellow of the IMechE, is hoping to supply regenerative braking systems based on flywheel technology to teams for 2010 through his privately funded firm Flybrid. The technology would capture energy from braking and release it to supply a burst of acceleration.

Since the late 1990s, Hilton says, F1 budgets have gone "crazy". "There was almost exponential growth. It got ridiculous. That was, to some extent, related to big car company culture and the way they throw resources at things rather than making engineering decisions about which projects to back and which not to back.

"The big teams got into a state where



they were doing every single thing they could think of – whether it was likely to produce a result or not.”

He adds: “In the 2009 season, [the budget is] the difference between Force India and McLaren. The budget difference is enormous yet the performance difference on the track is not that great. Force India has done really well in the last few races and that’s because they make good engineering decisions.”

Peter Harrison, a former chief test engineer at Williams who worked in the motorsport industry from the early 1990s until last year, sees parallels between F1’s troubles and the withdrawal of manufacturing money from the British Touring Car Championship a decade ago. “In the BTCC the manufacturers decided it was getting too expensive for the return. One of them pulled the plug and they all followed in quick succession.”

He also has had first-hand experience of cost-cutting in F1: at the end of last season, test teams were disbanded under pressure from the FIA, leaving him with the option of finding another job as a race engineer or getting out of the industry.

Harrison chose the latter, setting up his own business franchise on behalf of cost and purchase management company Auditel. “The cost-cutting is

probably the right thing to do in the long-term,” he adds, “but they [the FIA] were probably a bit clumsy in the way they introduced it. [The recession kicked in and when Honda pulled out of the championship, they panicked.]”

Hilton says his flywheel-based kinetic energy recovery system (KERS) will prove attractive even in a scenario where teams are spending less because battery-based alternatives cost more to run. “If you compare our KERS solution with battery-based systems which McLaren and Ferrari are to use, ours is incredibly low-cost,” he claims.

It is believed that McLaren and Ferrari will spend hundreds of thousands of dollars a race on batteries. “[Our technology] is going to run for four races in a row before you even have to do a £5,000 rebuild – it’s cheap as chips in comparison.” Flybrid is also working on the technology for road cars in a government-backed partnership with Jaguar. “There are still some carmakers that are not mad about looking at flywheels. More exposure, and certainly seeing them racing around on a Sunday afternoon, would help.”

Graham Mulholland, managing director of Derby’s EPM Technology, which supplies

carbon fibre composite body parts to F1, has approached all next year’s championship teams with what he believes is a compelling proposition for an industry that remains desperately fragmented. It could double the size of his business if it comes off.

“Formula One teams want parts quickly and executed well. They don’t necessarily want a technical partnership – they want a manufacturing partnership.”

“On the day the entries for next season were confirmed, we went to the teams with a proposal that, through scale, could reduce costs. We’ve gone to them and said: ‘we don’t want to work on an ad hoc basis – we want 12 months of work. What we will give you in return is sharp rates and, due to the scale of the operation, cost savings.’”

Mulholland supplies composites to four teams and suggests that could rise to seven by 2011. In doing so, EPM would almost double its staff numbers, from 100 to around 180, and sales would rise from around £5 million to up to £10 million. But he says he has never viewed F1 as a cash cow. “I know there’s a

recession on but we’re not doing anything now that our industry shouldn’t have done 10 years ago. They [the composites industry] viewed F1 as a gravy train. We view it as a customer base that challenges us and is exciting to be a part of.”

Harrison, as a former engineer with many years in motorsport, hopes he can use his network of contacts to win business for his franchise as teams look to cut costs. “The cost management side of Auditel is topical,” he says. “I should be able to help teams cut costs at a basic level – looking at their expenditure on communications and energy.”

He enjoys, he says, a new lifestyle of working at home, with no need for travelling to races and the office. “I’m quite glad to be out of F1,” he says. “I have new challenges and a new focus. I’m not paying too much attention to the championship. But as time goes on I will start to miss it.”

With a start-up business to run, Harrison hopes his future will be secure. In this new era of cost-cutting, it remains to be seen what the future holds for F1.

