

World cars: Risking R&D

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The current crisis in the automotive industry could have implications for many years to come if R&D budgets are slashed too heavily now.

As their income levels plunge, vehicle manufacturers currently have no choice but to slash their budgets and daily operating costs accordingly. Although no one in the industry seems to know what is around the corner, it is clear that no department or division will be left untouched by the present round of cost-cutting. Those vehicle manufacturers that want to retain a high level of competitiveness for when the current storm ends, however, would be well advised to reduce budgets elsewhere before turning attentions too heavily to their research and development (R&D) activities.

As the first original equipment manufacturer (OEM) financial results emerge for the fourth quarter of 2008, it is clear just how much income the automotive industry lost in the final months of last year. In the US, Ford's revenues fell by more than one third, equivalent to the loss of a staggering US\$15bn in just three months. In Japan, Honda's three-month sales revenues plummeted by 17%, or almost US\$6bn. In Europe, Fiat's fourth-quarter net revenues were also down by 17% compared to the previous year.

With 2009 widely predicted to be even tougher than 2008, it is clear that drastic measures must be taken if some car-makers are even to stay afloat. This will have to include dramatic cost-reductions in each area of their business. In the most severe of cases, priority decisions may have to be made; so only spending that is essential to keep the business running today will be sanctioned.

The risk is, however, that the car industry may live to regret actions taken in panic today, tomorrow. The last thing that car-makers are going to do right now is readily admit to a reduction in spending on their R&D activities. After all, although their profits may be going down the drain, societal and legislative pressure to reduce their environmental impact and the CO₂ emissions of their cars is as strong as ever. But anecdotal evidence suggests that a reduction in R&D spend is exactly what is happening.

Speaking in his role of President of the International Federation of Automotive Engineering Societies (**FISITA**), Christoph Huss, who is also BMW Group's Vice President Development Abroad, Type Approval and Traffic Management tells the EIU: "We know from our members that the financial pressure on the automotive and mobility industry is very high. This trend of each and every market falling by two-digit numbers is a crisis that has never been seen by the industry before. And so the reaction in some companies is to reduce the cost of their programmes and postpone some R&D projects."

Huss acknowledges that not every car-maker is going down this route. "Almost everyone within the industry is convinced that R&D is the trigger and the most

important element to remain competitive after the crisis." He also admits that "generally-speaking, R&D programmes are long-lasting programmes which you cannot switch on and off." For this reason, he says that programmes are being slowed down, as opposed to halted altogether.

Those businesses that do emerge from this crisis are likely to emerge stronger. As is often the case, the harsh operating environment will force businesses to seek out efficiency savings that will end up being beneficial to them in the long term. Speaking specifically with regards BMW, Huss says: "I cannot speak for different companies but within BMW, we are discussing whether we need each and every engine size or transmission variant. We are discussing how to save some money in testing. We are deciding how we can achieve the same results with less people, so using efficiency programmes in the workflow." Citing a specific example, Huss says that BMW is now trying to develop and integrate more virtual engineering programmes, thus transferring road testing into laboratories. "This is the kind of direction where we are trying to find ways of saving money whilst still being as efficient as before," he says.

Longer-term risks

Huss predicts that the effects of lower R&D spending are likely to be imperceptible in the short-term. "Short-term activities are already in the normal development strategy of our industry because we know what we have to do to fulfil the CO2 regulations by 2012 and 2015, for example. This is not research, it is part of development," he explains.

His concerns lie with longer-term projects where the real research is taking place. "The technology that is being launched in our cars today might have been discovered five years ago," he explains. "It is these mid-term and long-term research programmes which provide the basis for development in the pre-competitive phase that are at risk. It is very important that national governments really support these pre-competitive R&D activities if we are to carry on bringing different kinds of technologies to the market."

Citing the example of electric cars, Huss points out that Europe houses very few battery technology companies that are competitive on a global level. "Battery technology at the moment is coming from Asia and a little bit from the US. Here in Europe we have to catch up in this field, for which we need to devise new R&D programmes."

So what would the International Federation of Automotive Engineering Societies like to see happening to ensure that R&D spend is not cut too much now, to the detriment of all parties in the future? Firstly, Huss says that it is critical that collaborative research programmes between the automotive and other industries continue to be encouraged and given fresh funding. "Such programmes that are designed to bring different parties together have significant mid- to long-term benefits," he says. He points out that the automotive industry cannot facilitate the transition to hydrogen or electricity alone, for this the energy companies need to be on board. Likewise, the automotive industry needs the cooperation of telecommunication companies if traffic safety systems are to be taken to the next level.

Huss also thinks that national governments have an important part to play by supporting companies in the retention of staff at this time of crisis. "Industry and governments must work together to overcome this period of six to eight months and not to fire the people, which would be the worst-case scenario," he said.

Creating more unemployment will exacerbate the crisis and make it harder to come out of. Whilst any such programmes should be tailored to national requirements, however, he believes the European Commission should ensure that they are all running in the same direction.

“We must carry on working on future technology so that we can convince customers and society that although we are right in the middle of a crisis, we are still looking forward and are optimistic about the future,” he says. “A major reason behind the current crisis is the depression mode that many consumers are now in. To address that, we need to convince people that we have trust in the capabilities of our engineers that they will find the right solutions to this situation.”

Source: [Industry Briefing](#)