

LOTHAR MAIER

Take fresh ideas to the right markets, at the right time

Creating and fostering a culture of innovation in the business is the best way to stay one jump ahead of a fast-moving market, writes **Lothar Maier**



Innovation is the cornerstone of every company's success, but this innovation may be squandered if it is not applied to the right markets at the right time.

Linear Technology, for over 30 years, has focused its innovation exclusively on the analogue segment of the semiconductor market.

Over these 30 years, markets, products, customers – and even how products get sold – have changed, but one thing that has remained constant is the value of innovation and the power of being first to market.

The analogue market has grown from a \$30bn annual market 10 years ago to over \$40bn now, which is good growth. But the real story inside the analogue market is how the business segments that make it up have changed over the past 10 years.

Ten years ago communications, computer and consumer were the end-markets that made up most – nearly 80% – of the analogue market.

Fast-forward to today and it is clear that there has been a remarkable shift, with communications, computer and

consumer analogue market share shrinking to 58%. This decline has been offset by growth in the industrial and automotive segments of the analogue market.

In fact, in the past several years the industrial and automotive markets are the only segments of the analogue market that have been growing faster than the overall analogue market.

Why is this happening? The declining analogue market share for communications, computer and consumer can be explained.

These are broad markets with some very large customers that attracted greater competition, resulting in dramatic reductions in the average selling price of the products sold into them. This occurred even in the face of increased complexity, integration and performance.

These conditions slowed innovation, because when the focus is only on cost, innovation takes a back seat and 'good enough' is adequate.

For example, why does the charge on a cell phone last only about one day?

Certainly the technology is there to ensure longer charge times, but since the market is not willing to pay extra for this feature, few phones offer it.

The industrial and automotive analogue markets have fared much better. In these markets innovation is highly valued and the products are evolving dramatically – most conspicuously in the automotive market. Performance and styling were, in the past, strong motivators in the decision-making processes involved in buying a new car.

While these are still factors today, increasingly important are fuel efficiency, comfort, navigation/entertainment, and safety – and all of these new factors drive the need for additional analogue electronics.

Many of the mechanical functions in cars are being converted to electronic alternatives, to reduce weight, improve fuel economy and increase reliability.

The recent introduction by nearly every manufacturer of hybrid and electric vehicles highlights this trend, and also shows how electronics are reshaping the automotive market.

The most encouraging aspect of this trend is that it has only just begun. Every automotive component is getting a fresh look, with an eye to using electronics – from the steering wheel

to the suspension and everything in between. At Linear Technology, the transport market is the company's second largest end market, as well as the company's fastest growing market.

It has grown in the past several years from single-digit percentages to nearly 20% today.

In certain markets, such as Europe, which have some of the world's most innovative automobile manufacturers, these percentages are much higher.

The story in the industrial analogue market is similar, but has been under way longer.

Ten years ago it represented only 7% of the total analogue market, but today stands at over 20%, having enjoyed a decade of steady year-over-year market share growth.

The industrial analogue market growth has been relentlessly driven by the need for ongoing innovation.

This demands better efficiency, more automation, greater precision and higher integration, a cycle that started 10 years ago and shows no signs of slowing.

Making sure the company stays in the right markets at the right time has enabled Linear Technology to focus on these markets and earn industry-leading operating margins.

Lothar Maier is CEO of Linear Technology

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ElectronicsWeekly

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