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**MEMS Commercialization Report Card – Part 8: Marketing – Part 3**

**By Roger H. Grace**

**Introduction**

Welcome back to the MEMS Commercialization Report Card. We took a brief respite from the continuation of the four-part series on the topic of marketing to address a most timely and important issue facing marketers today: **Marketing in a Recession: How to Survive**<sup>(1)</sup>. I trust that those who read it found it of interest and value in trying to help their businesses survive during the COVID-19 pandemic. At the end of this article, I have attempted to provide the reader with an update on the subject.

Part 3 of the Report Card, which follows, provides a brief recap of the current and past Report Card grades. Previous Sensors Daily Newsletter articles on MEMS and sensors marketing are:

1. **Barriers To The Successful Commercialization of MEMS Devices**
2. **MEMS Commercialization Report Card – Part 2: Clusters**
3. **MEMS Commercialization Report Card – Part 3: Infrastructure**
4. **MEMS Commercialization Report Card – Part 4: Design For Manufacturing & Test**

The focus of this article will be the edited comments from two MEMS and sensors marketing experts who were part of 35 respondents to the Report Card Study. They highlight their successes in brief summaries of several case studies and detail the tactics used to provide successful outcomes of their marketing plans. I trust that you will find these interviews of value in helping develop successful, timely, and industry-proven strategies for your organization's marketing activities.

#### Report Card Grade

I have taken this opportunity to reiterate previous background information on the Report Card grade to help people who have only recently begun to follow this series. For those who are following the series, my apologies for the restatement.

As stated in Episode 7 (Marketing Part 2), the Report Card grade for MEMS was a B. It has been at this level since 2015, inferring that MEMS has finally become a mature technology, and MEMS marketing has finally come into its own (see figure 1). However, when the Report Card launched in 1998, the grade was a C-. Thus, it has taken quite some time to emerge from this unsatisfactory level, finally arriving at the B- level in 2013.

I have already addressed some of the rationale for this phenomenon<sup>[2] [3] [4]</sup> and referred to this situation of MEMS marketing as an oxymoron or opportunity, based on the responses from previous Report Card studies. The good news is, to be successful, one only has to be better than the competition, not necessarily perfect.



**Fig. 1: The MEMS Commercialization Report Card grade for marketing received less than favorable grades in the past. The good news is that it has improved slowly from its historical C levels to a B for the past four years. It's interesting to note that the Report Card provided low grades of C in 2009 and 2010 from the previous several years' grades of C+. Courtesy: Roger Grace Associates**

#### Interview Summaries

Dr. Robert Andosca, founder and former CEO of MicroGen, said, "In the development of my startup, MicroGen, I needed to find cost-effective approaches to successfully promote our novel MEMS-based energy-harvesting product. As with the plight of most startups, and as a small budget for marketing existed, I created a PowerPoint presentation and aggressively sought opportunities for presentations at industry technical conferences worldwide. What I considered unique to this approach was that I acted as a technology evangelist to educate my audiences as to the role that energy harvesting played in their products and focused on our unique piezoelectric technology. As a result, we were able to quickly increase the awareness of MicroGen in the market and differentiate our unique piezo-MEMS technology versus other energy harvesting approaches".

"Additionally, I became a major devotee of using LinkedIn to keep the market apprised as to what we were doing, i.e., new customer contracts, next presentation opportunities, new product introductions, and additions to our staff. Finally, I ended up creating several LinkedIn

groups including *EH-IoT+*, originally Energy Harvesting Group in 2010, which provided parties interested in energy harvesting an easy and affordable (free) way to communicate. All of this activity scored a very high level of standing in the Google search engine.”

**Lessons Learned:** Technology evangelists do not necessarily end up with their heads on a silver platter. They are able to gain credibility in the market via well-crafted and informational-based tutorial presentations at key conferences, and at no cost. Plus, LinkedIn is a very powerful tool and should be used to the extent that it can be.

Mark Laich, VP of Business Development at Imprint Energy, said, “I am a major fan of LinkedIn to deliver messages to my customers as well as for identifying key decision makers for new business development. On the other hand, I have found outgoing email vehicles including Constant Contact and Mail Chimp are less effective for these tasks because of their inability to get through spam filters. Email campaigns have a very low rate of open and response rates relative to LinkedIn messages.”

“LinkedIn subscribers qualify themselves by belonging to groups. My experience shows that an outgoing email campaign results in a 2% to 3% response rate. On the other hand, networked social media comes in at approximately 30% to 50%. During my tenure at USound, for instance, I used LinkedIn to invite a targeted list of acoustic engineers to a seminar that I conducted in the San Francisco Bay Area. I was able to personally contact about 150 prospective attendees. This campaign exceeded our expectations. We had 30 attendees, and I connected with a total of 75 acoustics engineers. We obtained two strategic deals from this campaign.”

“I am also a big fan of using video in networked social media. USound has been effective at utilizing a series of excellent videos on LinkedIn to show their stylish glasses with integrated MEMS speakers as well as other products and concepts. Video captures your attention much more effectively than a static image or a PowerPoint presentation.”

**Lessons Learned:** Networked social media is increasingly embraced by more MEMS and sensors companies. It can be created in house and is cost-effective. However, to be ultimately successful, it must contain clean and concise messaging.

## Summary & Conclusions

In this and the previous two episodes of the Report Card, readers have been provided information on the results of my annual MEMS Commercialization Report Card on the topic of marketing. Previous episodes address the rationale for the grades by approximately 35 respondents to the Report Card study.

I believe the key message from the respondents quoted herein is that networked social media needs to be considered as an important and high return-on-investment (ROI) element to the marketing mix for several reasons. Chief among these are that it has zero to little cost of creation and posting and has an ability to reach younger engineers, who are quickly becoming decision makers in the purchasing of MEMS and sensor components.

The current COVID-19 pandemic's effects on marketing become quite challenging when we are faced with social-distancing edicts that have significantly eliminated attending trade shows and visiting customers in person. Here, I believe that "necessity is the mother of invention" and provides marketers with the opportunity to consider adopting podcasts, blogs, webinars, virtual meetings, and other e-based communications strategies to effectively deliver their messages.

Publications including Sensors Daily and Sensors Daily Newsletter offer webinar programs. On a personal note, I have seen my attendance at webinars significantly increase over the last several weeks with the plethora of them currently being offered. Additionally, and noteworthy, is Mark Laich's strategy of using LinkedIn as a valuable tool to target and invite potential customers to his in-person seminars and also as a mechanism to follow up to qualify and develop new business opportunities.



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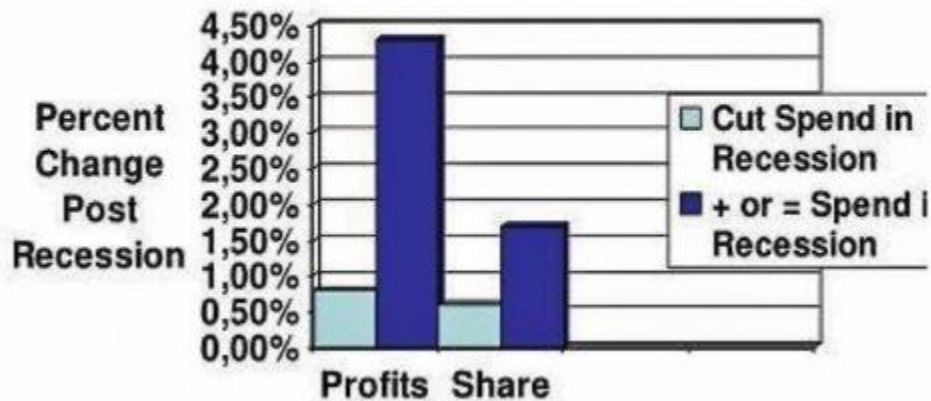
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Referring to the summary of the recommendations provided in "[Marketing in a Recession: How to Survive](#)"<sup>(1)</sup>, there is also a lesson to be learned from the brief analysis of selecting optimum marketing strategies. This is based on the strategies and corresponding results provided by several previous market research case studies conducted in the US in similar times of societal/financial unrest.

The bottom line of the case studies in the "Marketing in a Recession: How to Survive" article was that those who reduce spending in times of economic downturns will emerge with lower market share, resulting in lower profitability. There is ample evidence that maintaining share of voice at or above share of market will result in longer-term improvement in profitability (see figure 2).

## Post Recession Results



**Fig. 2: The Profit Impact of Marketing Strategy (PIMS) Study, conducted in 1999, investigated 183 UK-based companies and compared advertising spend during recessions to market share and profit during recovery. Those that spent in recession did better afterward than those that did not. Courtesy: PIMS**

### REFERENCES

- [1] R. Grace; Marketing in a Recession: How to Survive, Sensors Daily, April 8 2020
- [2] R. Grace; MEMS and Sensors Marketing: Oxymoron or Opportunity, Part 1; Commercial Micromanufacturing International; Vol. 9, No. 4; pp. 36-41.
- [3] R. Grace; MEMS and Sensors Marketing: Oxymoron or Opportunity, Part 2; Commercial Micromanufacturing International; Vol.10, No.2; pp. 36-41.
- [4] R. Grace; MEMS and Sensors Marketing: Oxymoron or Opportunity, Part 3; Commercial Micromanufacturing International; Vol.10, No.3; pp. 39-45.

About the Author



**Roger H. Grace is president of Roger Grace Associates, a Naples, Florida-based strategic marketing consulting firm specializing in high technology. His educational background includes a BSEE and MSEE (as a Raytheon Company fellow) from Northeastern University, and the MBA program at Haas Graduate School of Business at U.C. Berkeley. He has specialized in sensors and ICs for over 35 years with a focus on micro electromechanical systems (MEMS). He has authored over 75 technical papers and articles, organized, chaired, and spoken at over 50 international technical conferences.**

**Roger is frequently quoted as an industry expert in major international technical and business publications on the topic of technology commercialization. He was the co-founder, past president, and currently is the Vice President of the Americas of the Micro, Nano and Emerging Technologies Commercialization Education Foundation (MANCEF) and served on the Board of Directors of the Florida Manufacturing Extension Partnership from 2008 to 2014. For more details, contact Roger via email at [rgrace@rgrace.com](mailto:rgrace@rgrace.com) and to learn more, visit Roger Grace Associates.**