

What are the results of the 2019 MEMS Industry Commercialization Report Card survey? Part 2

December 21, 2020 by Randy Frank

Roger Grace Associates MEMS Industry Commercialization Report Card (Report Card) Study for 2019 showed its overall grade remaining at B-, which has been so since 2014. This consistency demonstrates the maturity of the MEMS industry. The standard deviation from 1998 to 2019 was 0.55.

Conducted annually since its inception in 1998 by Roger Grace of the market consultancy, Roger Grace Associates, Grace observes, “Report Card grades have been inextricably linked to the overall technology economy with the highest grades associated with the “dot-com” bubble in the 2000-2002 time period and lowest in the 2008-2009 time period with the worldwide economic crisis.” The lowest final total grade over the 1998 to 2019 reporting period was C+ which was attained in 1998, 2008, 2009, 2010 and 2012 with the highest at B in 2000, 2001, 2004, 2005 and 2014.

Grade changes from 2018 to 2019 were:

1. Standards increased from C- to C
2. Marketing declined from B to B-
3. R & D declined from A- to B+
4. Design for Manufacturing declined from B+ to B

Some of the key “take-aways” for 2019 MEMS industry participants vis-à-vis study verbatim responses include:

2019 MEMS COMMERCIALIZATION REPORT CARD																						
SUBJECT / YEAR	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
R&D	A	A	A	A	A	A	A	A	A	B	B	B+	B	B	B	B	B	B+	A	A	B+	B-
Marketing	C	C	C+	C+	C	C	C	C+	C+	C+	C	C	C+	C+	B	B-	B	B	B	B	B	B-
Market Research	C	B	B	B	B	B+	B	B	B	B	B+	A	B	B	B	B	B	C+	C+	B	B	B
Design For Manufacturing	C+	B	B	B	B	B	C+	B	B	B+	A	A	B+	B	B	B+	A	A	A	A	B+	B
Established Infrastructure	C+	B	B+	A	A	A	A	A	A	B+	B+	A	A	A	A	A	A	A	A	A	A	A
Management Expertise	C	C	C+	C+	C+	C+	C+	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Venture Capital Attraction	C	B	B+	A	C	C	C	C+	C	C	B	B+	B+	B+	B+	D	D	D	D	B+	C	C
Creation Of Wealth	C	B	B+	A	C	C	C	C	C	C	B+	C	C+	C+	C+	B	C+	C+	C+	C+	C+	C
Profitability	C	C	C	C	C	C	C	C	C	C	B+	D	C	C	C+	C+	C	C	C	C	C	C
Industry Roadmap	INC	B	B	B+	A	A	A	B	B	C+	C	C	C	C	C	C+	B	C+	C	C	C	C
Industry Association	INC	INC	INC	B	B	B+	B	B	B+	B	B	A	B+	B	B	B						
Standards	INC	INC	INC	INC	C	B	B	B	C	C	C	C	C	C	C	C	B	C	C	C	C	C
Employment	INC	INC	INC	INC	C	C	C+	C+	C+	C	C	C	C	C	C	C	B	B	B	B	B	B
Cluster Development	INC	INC	INC	INC	B	B	B+	B	B	C+	C+	C	C	C	C	B	C	B	C	C	C	C
Overall Grade	C+	B	B	B	B	B	B	B	B	B	C+	C	B	B	B	B	B	B	B	B	B	B

- Continue to create significant awareness as to the unique solution benefits of MEMS-based system solutions (MBSS) add value
- Understand customer / market needs vis-à-vis rigorous market research...listen to the “voice of the customer”
- Define and establish defensible product differentiation
- Adoption of a marketing / applications pull vs. technology push strategy
- Embracing new media strategies including social media e.g. LinkedIn, webinars e.g. Zoom, videos e.g. YouTube email e.g. Constant Contact to keep/develop new customers to overcome the loss of in-person strategies e.g. trade shows, sales calls

- Continue to develop manufacturing / packaging solutions that can help differentiate the product from a price / feature / performance perspective...packaging and testing will continue to be “king”
- Accept the fact that obtaining venture capital (VC) funding for MEMS will continue to be a major struggle. Much better routes are through angels, industrial partnering and buy-outs.

“The prognostication for the 2020 Report Card is that several subjects will deliver decreased grades due to the Covid-19 pandemic,” says Grace. “However, on the brighter side, new challenges are expected to bring new opportunities.”

For a detailed analysis of the Report Card, please go to www.rgrace.com/articles.

Individuals interested in participating in the 2020 Report Card Survey should send an email to rgrace@rgrace.com.