

**DATE:** February 9, 2018  
**TO:** California Air Resources Board  
**FROM:** Michael Rattner, Partner, AdvancedMEMS LLC  
**RE:** Small Business Considerations

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### **Summary**

AdvancedMEMS is a small business that does research and product development in the biomedical, semiconductor, and sensor fields. We've recently created a prototype methane sensor with significant advantages over existing technologies. Small businesses like ours are critical to developing the technologies that make environmental monitoring and pollution control possible.

Small businesses are also a major economic driver, creating more local jobs than large businesses while at the same time, dispersing economic gains to a wider and more diverse population. Currently, many small technology businesses grow via Federal Small Business Innovations and Research (SBIR) grants; however, the goals of California may not always align with those of the Federal Government. It is therefore essential that CARB:

- Engages with small businesses as a routine part of planning
- Prioritizes the needs of small businesses in the Triennial Plan
- Helps facilitate the growth of environmentally-focused small businesses in California

### **Background**

The University of California alone produces approximately 80 companies a year. Other universities, as well as, other types of research institutions and individual entrepreneurs create many more. Small businesses with fewer than 20 employees represent more than 78% of all businesses in California and employ approximately 24% of all workers in the state. These companies frequently get their first funding from the Federal SBIR funding. The SBIRs provide not only monetary benefits, but bestow legitimacy upon small businesses, enabling collaborations with larger corporations or the raising of venture capital. However, it should be noted that venture capital investment is not ideal for most small businesses, even technology-based ones. Alas, the environmental priorities of the Federal Government and the State of California may not align and, in fact, are currently diverging. To remain the leader in environmental innovation, it is therefore essential that state organizations such as CARB continue to foster small business growth in accordance with our shared environmental vision.

### **Engage with Small Businesses**

- *By engaging with small businesses during the planning process, CARB can (1) ensure that small businesses have a voice in planning and (2) make the government of California a better resource for small businesses*

Small businesses face different constraints than academics, researchers, and large corporations. They rarely have executives or employees with the time or specific job function of impacting public policy, yet public policy directly affects them. Small businesses tend to have an intense focus on the bottom line and activities that support short term cash flow. This is the nature of having many short term bills and a “burn rate.”

California regulatory agencies aren't just the rule makers for large corporations. They don't just guide the research that makes environmental policy. These agencies are some of the best resources for small businesses to network with. They provide context, research help and connections, so that they can grow and thrive. By making it clear that CARB can connect small businesses with large corporations and help establish research and development relationships, small businesses will be more compelled to engage in the planning process.

### **Prioritize Small Business Needs**

- *Prioritizing the needs of small businesses as part of the Triennial Plan will lead to stronger environmentally-focused small business development in California*

Small businesses can benefit greatly from subcontracts from large companies or from collaborative or joint development agreements. This grants small businesses visibility inside of a corporation and may provide a strong ongoing sales channel, providing consistent revenue streams that are important to small business survival and sustainability. By mandating such partnerships as part of negotiations with companies or academia, all businesses will benefit.

Additionally, small businesses benefit when grants and contracts are sized for them. Depending on size, most truly small businesses (fewer than 20 employees) are well equipped to perform on grants from the low hundreds of thousands to a few million dollars in size.

### **Establish New Programs that Facilitate Small Business Growth**

- *CARB can institute new programs focusing on small business, facilitating the growth of small businesses in California*


CARB can be a great facilitator for small business growth, duplicating some of the benefits of SBIRs while aligning with the State of California's strategic goals. To do so, the implementation of the following recommendations would prove beneficial:

- A point of contact that can help introduce small businesses to the appropriate R&D contacts at large California-based corporations
- An R&D fair or conference that facilitates interaction between small businesses and potential customers
- Development of a "seed" program that enables the State of California or large businesses to invest in the productization of promising new and early stage technologies

### **Conclusion**

I attended the CARB Triennial Planning meeting this year and was truly impressed by the public discourse on display. I was the only member of the small business community physically present at the meeting. While technology does enable involvement at a distance, real change often requires showing up in person. It is important to find ways to engage with small businesses as part of the planning process, especially because small business is essential to California's economic and environmental future.

Sincerely,



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