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### **Starting Up a Company in a Mature Market: Wise or Foolish ?**

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SDCmaterials, Inc. (SDC) is a venture backed, mature start up in the automotive sector. Moreover: Catalytic Converters for vehicles and stationary applications. The company has invented and developed environmentally friendly, novel materials as well as material integration techniques for catalytic converters based on a proprietary and patented nanotechnology.

Traditionally catalysts require large amounts of PGMs (Platinum Group Metals), more than USD 10B per year, in order to treat vehicle emissions. Due to that, the catalytic converter is the single most expensive piece part in a vehicle. The currently used technologies have served the industry well. However, as emission standards dramatically tighten, particularly in China, the demand for more fuel efficient and Hybrid vehicles increases, this technology begins to start showing limitations as it can meet the aforementioned demands only by increasing the PGM amount per vehicle. This in turn will increase the cost per vehicle and / or reduce margins for the automotive industry, and in addition to that impact the environment negatively.

In contrast to existing technologies, the SDC based technology can meet future emission goals by maintaining, or even reducing, the PGM amount required to treat exhaust emissions. This results in tremendous savings for the consumer and the automotive industry, as well as a significantly better stewardship of natural resources and clean manufacturing. In the present paper the pros and cons of starting a nanotechnology company in a mature market are presented. Both from a business economics, as well as from a technology point of view. The case is made that it is possible to start a company in a mature market and that novel technologies can compete economically with 40+ old year technologies.