Advanced Materials in Manufacturing Survey
(Executive Summary)

[Industry Profile]

- “Top 2” Composite Clusters: Weber County and Salt Lake County
- The Wasatch Front has small clusters throughout Box elder, Davis, and Utah County
- Approximately 50% of companies willing to drive over 31 miles to the innovation center. The other 50% are NOT willing to drive more than 25 miles.
  - Clusters around Salt Lake County willing to drive more than 45 miles
  - Clusters around Weber County only willing to drive less than 25 miles

[Business Clusters]

- Biggest market segments are:
  - Aerospace/Defense
  - Aerospace/Commercial
- The Raw Materials, Sports, and Energy segments tied for 3rd place.
- More than 50% said that “Design” is the other industry they are involved in. Testing Non-Destructive is the next category along with Consulting with highest responses.
- The market segment along Weber County is most interested in “NDI Method Improvement”.
- The market segment along Salt Lake County is most interested in “Process Development”.

[Processes]

- Top 3 Primary Processes include the following in order:
  - Hand Layup (1st)
  - Filament Winding (2nd)
  - Compression molding (3rd)
- More than 55% said that CNC Machining is the secondary manufacturing process that the business employs.
- More than 60% said that Oven(s) are equipment the company employs. Freezers and refrigerators were next.

[Employment]

- The Wasatch Front has a good mixture of small, medium, and large size companies (based on employee head count).
- These companies will be hiring in the next three years anywhere from 10 employees to more than 1,000. There is a good labor demand mix.
- Between 10 & 100 Production Technicians will be hired during each of the following three years. This same figure goes for degreed Engineers and SuperTechs.
[Use of Innovation Lab]

- **Top 3 “Research Needs”** from lab are the following:
  - Materials Testing (1st – over 70% of responses)
  - Process Development (2nd – over 64% of responses)
  - Non-Destructive Improvements (3rd – over 55% of responses)

- **Highest “Quality Assurance”** need:
  - Non-Destructive Inspection (63%+)
  - The following two needs are Impact Testing and Tensile Testing.

- **Most pertinent “Manufacturing Capability”** at location:
  - Non-Destructive Inspection (64%+)
  - The following two needs are Automation and Additive Manufacturing.

- **Weber** County and **Salt Lake** County had different industry needs (VERY INTERESTING).
  (See Appendix A.)

[Education & Skills]

(*Technicians*)

- **Top 2 “hands-on”** training needed are:
  - Hand Layup
  - Filament Winding

- **70%** expressed that “Technical Certifications” are very **important**

(*SuperTechs*)

- **Top 2 “hands-on”** training needed are:
  - Producibility/Manufacturability
  - Manufacturing supervision

- An **“Associates Degree”** is **preferred by 50%** of the respondents. A **“Trade Certification”** is accepted by the other half (50%).

(*Education Levels*)

- **Top 2 Bachelor Degree’s** sought are:
  - Mechanical Engineering
  - Manufacturing Engineering

- Engineers degree breakout:
  - Most **Bachelor’s Degrees** (75%-100%)
  - Some **Master’s Degree** (30%)
  - Few have **PhD Degree** (10%)