Survey Background

- Team collaboration (IMCP Innovation Group)
  - 80 surveys sent to participants
  - 29 Responses (36% Response Rate)
Findings

1. Industry Profile
2. Business Clusters
3. Current Business Processes
4. Use of Innovation Center
5. Education & Skills
6. Employment
1) INDUSTRY PROFILE
Which county is your Primary Location?

- Salt Lake, 44.8%
- Weber, 34.5%
- Others

Other counties:
- Box Elder
- Davis
- Summit
- Utah
Other locations in Utah?

- No additional, 57.7%
- Davis: 13.8%
- Salt Lake: 10.3%
- Weber: 6.9%
- Box Elder: 6.9%
- Juab: 3.4%
- Tooele: 3.4%

Question 6
How far would your company be willing for you to drive to make use of an innovation center?

- 0-10 miles: 35.0%
- 11-20 miles: 30.0%
- 21-30 miles: 25.0%
- 31-40 miles: 20.0%
- 41-50 miles: 15.0%
2) BUSINESS CLUSTERS
What is the primary industry area of your business?
What other industries are you involved in?

Design: 50%
Aerospace/commercial: 40%
Consulting: 30%
Aerospace/defense: 20%
Analysis: 10%
Energy: 0%
Testing, destructive: 0%
Automotive/transportation: 0%
Sports: 0%
Marine: 0%
Architectural: 0%
Infrastructure: 0%
Raw material/manufacturer: 0%
Other: 0%
3) CURRENT BUSINESS PROCESSES
What primary processes does your business use?
What secondary manufacturing process does your business use?

- CNC machining: 55%
- Hand drilling: 36%
- Hand machining: 34%
- CNC routing: 33%
- Hand routing: 27%
- None: 21%
- Other: 15%
What process equipment does your business use?

- Oven(s)
- Freezer(s)
- Refrigerator(s)
- Autoclave(s)
- Class 400k or better clean room(s)
- None
- Other

Question 11
4) USE OF INNOVATION CENTER
Categories of Usage

- Research
- Lab & Quality Assurance
- Manufacturing Capabilities
We would be interested in using this facility for the following research:

- Material testing: 70%
- Process development: 60%
- Non-destructive: 50%
- Material qualification: 40%
- New product: 30%
- New equipment: 20%
- Applied research: 10%
- Productivity: 5%
- Fundamental research: 3%
- Material allowances: 2%
- Damage tolerance: 1%
Research Differences

Weber County

- Non-destructive testing method improvements: 78%
- New product development: 67%
- Material testing: 56%
- Process development: 56%

Salt Lake County

- Process development: 75%
- New equipment demonstration: 75%
- Material testing improvement: 67%
- Product improvement: 58%
"We would be interested in using this facility if the following laboratory and quality assurance capabilities were available: "

[Bar chart showing various laboratory and quality assurance capabilities with their corresponding percentages.]
What manufacturing capabilities would be of use for development if offered at this facility?
Manufacturing Capabilities Differences
(Weber & Salt Lake County)

- Automation: 75% for Salt Lake County, 56% for Weber County
- Additive manufacturing (plastic and metallic) for prototyping and limited production
- Robotics: 50% for both counties
- Non-destructive inspection: 89% for both counties
5) EDUCATION & SKILLS
Technicians
In what primary skills do these technicians need hands-on training?

- Hand Layup: 45%
- Filament winding: 35%
- Vacuum Bagging: 30%
- Compression molding: 25%
- Other: 20%
- Resin Transfer Molding (RTM): 15%
- Vacuum Assisted Resin Transfer Molding (VARTM): 10%
- Bladder molding: 5%
- Resin Film Infusion: 2.5%
- Chopper Gun: 1.25%
Are technical certifications of your employees important to your company?

- Yes: 70%
- No: 30%

Question 21
SuperTechs
In what primary skills do they need a combination of theoretical and hands-on training?
At what level should a SuperTech be certified?

- Trade certification: 48%
- AS degree, with stackable credits that can apply to a BS degree: 30%
- AS degree: 22%
General Education
What degrees are considered?

- Mechanical Engineering: 90%
- Manufacturing Engineering: 70%
- Materials Engineering: 50%
- Chemical Engineering: 40%
- Industrial Engineering: 30%
- Software Engineering: 20%
- Electrical Engineering: 10%
- Not applicable: 0%
Approximately what percentage of your company’s degreed engineers have a BS degree?

- 0-25%
- 26-50%
- 51-75%
- 76-100%
- Unknown to this respondent

59%
Approximately what percentage of your company’s degreed engineers have a MS degree?

- 0-25%
- 51-75%
- 26-50%
- Unknown to this respondent
- 76-100%
Approximately, what percentage of your company’s degreed engineers have a PhD?

0-25% 26-50% 51-75% 76-100% Unknown to this respondent
6) EMPLOYMENT
Estimate how many people your business employs in Utah.

- 0-10
- 11-50
- 51-150
- 151-300
- 301-1000
- >1000
Estimate how many people your business expects to employ in Utah in three years.

![Bar graph showing the percentage of businesses in different employment size categories. The categories are 0-10, 11-50, 51-150, 151-300, 301-1000, and >1000 employees, with the 51-150 category having the highest percentage at 25%.]
How many trained production technicians does your company anticipate the need to hire in each of the next three years?

Unknown to this respondent  1-10  11-30  31-50  51-80  >81
How many trained composite SuperTechs does your company anticipate on hiring on each of the next three years?

![Bar chart showing percentage of responses for different hiring ranges.]

Question 22
How many degreed engineers does your company anticipate the need to hire in each of the next three years?
QUESTIONS