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21st Century Supply Chain Transformation Survey

Workforce Innovation in Regional Economic Development (WIRED)

Project Code:

(If you have not been given a code please leave blank)

How were you referred to this survey?

- AVBOT Antelope Valley Board of Trade
- Economic Development Corporation
- CSA California Space Authority
- California Community Colleges
- AVC Antelope Valley College
- Workforce Investment Board
- Professional association
- One of our customers
- One of our suppliers
- InnovateCalifornia.net
- Web Search
- Other (please specify) _____

What is your role in your company?

- CEO/President
- Supply Chain/Procurement
- Manufacturing/Operations
- Human Resources
- Quality Assurance
- Communications
- Lean
- Other (please specify) _____

Company Profile

1. What percentage of your company revenue is sales to the Aerospace industry annually?

- 0%
- 25%
- 50%
- 75%
- 100%

2. What other major industries besides Aerospace do you serve?

- Automotive _____ %
- Electronics _____ %
- Consumer _____ %
- Other (please specify) _____ %

3. What percent of time does your company spend doing the following? (Must total 100)

Commercial work _____ %
 Government work _____ %

Please refer to the map below to determine region in California for the next two questions.



Map based on the 2005 California Regional Economies Project Regions.

4. How many manufacturing sites does your company have in each region in California and approximately how many employees in each region?

	Sites	Employees
Northern California	_____	_____
Northern Sacramento Valley	_____	_____
Greater Sacramento	_____	_____
Bay Area	_____	_____
Central Coast	_____	_____
San Joaquin Valley	_____	_____
Central Sierra	_____	_____
Southern California	_____	_____
Southern Border	_____	_____

5. How many manufacturing sites does your company

have in other states and approximately how many employees in each state?

	Sites	Employees
Other states (2-digit code) _____	_____	_____
Other states (2-digit code) _____	_____	_____
Other states (2-digit code) _____	_____	_____

6. Approximately how many employees does your company currently employ in total?

- 1 to 50
- 51 to 100
- 101 to 250
- 251 to 500
- 501 to 1000
- greater than 1000

7. What percent of your company's revenue comes from...

Systems Integration/final assembly

- None
- < 25%
- 25-50%
- 50-75%
- 75-100%

Sub assembly

- None
- < 25%
- 25-50%
- 50-75%
- 75-100%

Supplying parts

- None
- < 25%
- 25-50%
- 50-75%
- 75-100%

Supplying material

- None
- < 25%
- 25-50%
- 50-75%
- 75-100%

Special Processing

- Never
- < 25%
- 25-50%
- 50-75%
- 75-100%

8. Please indicate the Information Technology Management systems you use internally, with suppliers and with customers. (Check all that apply)

ERP/MRP (Enterprise Resource Planning/ Materials Resource Planning)

- internally

- w/ suppliers
- w/ customers
- Not currently using

e-Procurement

- internally
- w/ suppliers
- w/ customers
- Not currently using

PDM/PLM (Product Definition Management/ Product Life Management)

- internally
- w/ suppliers
- w/ customers
- Not currently using

MES (Manufacturing Execution System/Shop floor control)

- internally
- w/ / suppliers
- w/ customers
- Not currently using

CRM (Customer Relationship Management)

- internally
- w/ suppliers
- w/ customers
- Not currently using

SPC (Statistical Process Control)

- internally
- w/ suppliers
- w/ customers

CAD (Computer-aided Design)

- internally
- w/ suppliers
- w/ customers
- Not currently using

CAM (Computer-aided Manufacturing)

- internally
- w/ suppliers
- w/ customers
- Not currently using

9. If you selected CAD/CAM what programs do you use at your site? (Check all that apply)

- Catia
- PTC
- Other (Please Specify) _____

10. Do you use Exostar, the Aerospace & Defense Global trading Exchange at your site?

- Yes but only when requested to.
- Yes with suppliers and customers.
- No
- Other (Please Specify) _____

11. Have you participated in an electronic reverse auction?

- As a bidder when requested to.

- As the customer requesting suppliers to bid.
- No

Management

1. Please answer each of the following questions about your company.

Does your company have a documented corporate strategy?

- Yes
- No
- Needs improvement

Does the corporate strategy include a supply chain strategy?

- Yes
- No
- Needs improvement

Is it communicated to all employees?

- Yes
- No
- Needs improvement

Does your company sell or buy products internationally?

- Yes
- No
- Needs improvement

Has your company identified its core competencies and unique value in the supply chain?

- Yes
- No
- Needs improvement

Does your company have experience controlling proprietary customer information?

- Yes
- No
- Needs improvement

Is your company cleared to do classified government work?

- Yes
- No
- Needs improvement

Is your company ITAR (International Traffic in Arms Regulations) compliant?

- Yes
- No
- Needs improvement

Does your company use global sourcing and logistics?

- Yes
- No
- Needs improvement

Does your site have contingency plans in place for loss of people, IT, and supply chain disruption?

- Yes
- No
- Needs improvement

Do your key suppliers?

- Yes
- No
- Needs improvement

Do you have specific processes in place to prevent Counterfeit parts from getting to the customer?

- Yes
- No
- Needs improvement

Does your company have an effective Injury and Illness Prevention Program as required by state OSHA standards (Title 8, California Code of Regulations, Section 3203)?

- Yes
- No
- Needs improvement

Material

1. What type of Supply Chain planning for materials does your site perform?

- 3-5 years
- Annual
- 3-month
- All of the above
- None

2. How well is inventory accuracy controlled by your site?

- >98%
- >90%
- <90%

3. At what point in your company's product development cycle does your supply chain organization and suppliers usually get involved to collaborate?

- Early phases of product development (design and/or requirements).
- After design is complete, during the production planning cycle.
- When production plan is complete and part orders are required.
- Other (Please Specify)_____

4. At what point in your customer's product development cycle is your company invited to participate?

- Early phases of product development (design and/or requirements).
- After design is complete, during the production planning cycle.
- When production plan is complete and part orders are required.
- Other (Please Specify)_____

5. What process does your company usually use to select suppliers?

- Best Value (Competitive selection process based on multiple factors including total cost, quality, delivery, stability).
- Competitive selection which factors primarily price and capacity.
- Usually select known suppliers without competitive bids from others.
- Availability to deliver.
- Other (Please Specify)_____

6. Approximately how many active suppliers do you have?

- <50
- <500
- <2000

- >2000

7. Approximately how much does your company spend in material procurement annually?

- <\$5M
- <\$50M
- <\$250M
- <\$1,000M
- >\$1,000M

8. How are suppliers managed by your company?

- We measure suppliers on cost, quality, and delivery and work together with key suppliers to help them improve.
- We measure suppliers on cost, quality, and delivery and share that information routinely with them.
- Little or no metrics are used to manage suppliers

9. Does your company manage suppliers?

- For key components
- When there are problems only
- Never

10. What improvement processes are used by your company? (Check all that apply)

- Six Sigma
- Lean
- Value stream mapping
- Risk and opportunity management
- Statistical Process Control
- Other (Please Specify)_____

11. Does your company use a specific tool to periodically communicate performance and quality metrics to your customers?

- No communication of performance.
- Communicate performance but no tool in place.
- Communicate performance using a customer provided tool.
- Communicate performance using our own tool.

12. Do your suppliers use a specific tool to periodically communicate performance and quality metrics to your company?

- No communication of performance.
- Communicate performance but no tool in place.
- Communicate performance using a communication method that we provide.

Manufacturing and Quality Processes

1. How much are lean principles used in your manufacturing areas?

- Lean principles used throughout.
- Lean principles used in about half
- Some lean knowledge and implem

- Lean not implemented.
- Lean not understood.

2. What manufacturing process controls are used by your company?

- Mistake Proof (Poke-yoke) and/or SPC used throughout.
- Mistake Proof (Poke-yoke) and/or SPC used in 50% of areas.
- In-process inspection is used to check quality.
- Post-production inspection is used to check quality.
- None
- Other (Please Specify)_____

3. How long has your site used a continuous improvement method such as Six Sigma or lean?

- For > 2years
- For about 1-2 years
- Less than 1 year
- No continuous improvement process used.

4. How are performance metrics used in manufacturing to drive improvements?

- Hourly and daily visual controls and metrics are used by the production line teams to manage production, quality, and inventory.
- Weekly performance metrics are shared with the production line teams by management.
- Monthly performance metrics are shared with the production line teams by management.
- No performance metrics are shared.

5. Please put in rank order according to priority of supply chain metrics. (1 highest to 5 lowest)

- On time delivery to customers _____
- On time deliver by suppliers _____
- Customer return rate/Cost of poor quality _____
- Inventory turn _____
- Order fulfillment lead time _____

6. How are procedures used by your company in manufacturing to assure good quality?

- The “standard work” methodology has been implemented (e.g. Nissan/Toyota).
- Written procedures are actively used.
- Written procedures are in place and referred to only for training.
- No written manufacturing procedures are in place.

7. How does your site manage supplier quality issues?

- Supplier quality issues are documented and analyzed. The site and suppliers work closely together to resolve problems and improve quality.
- Supplier quality issues are documented. Suppliers are sent information and expected to

- resolve problems independently.
- Suppliers do not respond well to quality problems.
- Other (Please Specify) _____

8. Does manufacturing lay out its product lines to align best with the TAKT time (the rate at which your customers buy your products)?

- Yes
- No
- Don't know

Quality Assurance and Documentation

1. Which of the following Quality Management System Certification does your company have?

- AS9100
- ISO 14001
- ISO 9001:2001
- TS 16949
- Mil-Q-9858
- Mil-I-45208
- MIL-PRF 38534
- N/A
- Other (Please Specify) _____

2. How often does your company do quality self audits?

- Annually
- Quarterly
- Monthly
- Never

3. What is your site's Nonconformance Management process? (Check all that apply)

- Documented Nonconformance Process with Corrective & Preventative Action process
- Root cause analysis
- Risk Management System

4. Does your company have NADCAP Certification in these areas? (Check all that apply)

- | | | | |
|---------------------|-------|------|-------|
| NDT | ○ Yes | ○ No | ○ N/A |
| Material Testing | ○ Yes | ○ No | ○ N/A |
| Heat Treat | ○ Yes | ○ No | ○ N/A |
| Welding | ○ Yes | ○ No | ○ N/A |
| Brazing | ○ Yes | ○ No | ○ N/A |
| Chemical Processing | ○ Yes | ○ No | ○ N/A |
| Platings | ○ Yes | ○ No | ○ N/A |
| Coatings | ○ Yes | ○ No | ○ N/A |
| Soldering | ○ Yes | ○ No | ○ N/A |

Engineering and Technology

1. What capabilities exist in your company? (Check all that apply)

- New product design
- Design for manufacturability analysis
- Engineering analysis (stress, thermal etc.)
- Testing
- Prototyping - physical
- Prototyping – virtual/digital simulation

2. What percentage of your suppliers does your site involve with...

- | | |
|--|--------|
| New product design | _____% |
| Design for manufacturability analysis | _____% |
| Engineering analysis (stress, thermal, etc.) | _____% |
| Testing | _____% |
| Prototyping - physical | _____% |
| Prototyping - virtual/digital simulation | _____% |

3. What percentage of your sales involve customer collaboration with your site?

- | | |
|--|--------|
| New product design | _____% |
| Design for manufacturability analysis | _____% |
| Engineering analysis (stress, thermal, etc.) | _____% |
| Testing | _____% |
| Prototyping - physical | _____% |
| Prototyping - virtual/digital simulation | _____% |

Training and Development

1. Does your company have a workforce development plan that has defined skill requirements, assessment, gaps analysis, and training for all positions?

- Yes all positions
- Yes key positions only
- No

2. Are there training and procedures to control high risk activities (e.g. lock out/tag out, confined space entry, excavation/ trenching, work at heights, work requiring hazardous energy control, high voltage electrical work, work involving scaffolding or steel erection)?

- Yes, with careful auditing/oversight.
- Yes, but limited auditing/oversight.
- No

3. Where do you anticipate a shortage of employees to occur in the next five years? (Select all that apply)

- Skilled production
- Unskilled production
- Scientists and Engineers
- Sales and Marketing
- Management
- Customer Service
- None

- Other (Please Specify) _____

4. At what level does the shortage of skilled employees affect your company’s ability to meet customer needs?

No Impact *Major Negative Impact*
 1 2 3 4 5

5. Which of the following are the most important to your company’s success in the next three years? (Select up to three)

- Highly trained workforce
- Integration of latest technologies
- Product innovation
- Increasing global sales
- Lowering production costs
- Increasing customer service
- Supply Chain integration

6. How does your company currently meet training needs? (Select top three)

- Training developed internally
- Local Community College
- University
- Technical schools
- Online training providers
- Private/consultant training providers
- Professional Associations
- State funded training programs/ETP funds
- Federally funded training programs
- Other (Please Specify) _____

7. Please share any training providers that you recommend to help us create a training resource list to be shared on the InnovateCalifornia.net website.

8. What are the predominate reasons your company provides training to your employees currently? (Select up to three)

- Required by state/local government
- Provision in labor contract
- Attract new workers
- Keep current workforce skilled in latest technologies
- Increase basic skills of entry level employees
- Business necessity (Survival)

9. Does your company spend more, less or about the same on training as it did five years ago.

- More
- About the same
- Less

10. What percent of your employees receive training provided by your company each year?

- Less the 15 %
- 16% to 25 %
- 26% to 50%
- 51% to 75 %
- 76 % to 100 %

11. How prepared for an entry-level job with your company are applicants with a certificate from a community college?

- Poorly
- Adequately
- Fully

12. Indicate how important training in the following areas is for your company or site in the next 3 years?

Logistics and transportation best practices

Not Important *Very Important*
 1 2 3 4 5

Purchasing and procurement best practices

Not Important *Very Important*
 1 2 3 4 5

Manufacturing best practices

Not Important *Very Important*
 1 2 3 4 5

Finance and accounting management best practices

Not Important *Very Important*
 1 2 3 4 5

Sales and marketing best practices

Not Important *Very Important*
 1 2 3 4 5

Information technology best practices

Not Important *Very Important*
 1 2 3 4 5

Forecasting and time series analysis

Not Important *Very Important*
 1 2 3 4 5

Simulation modeling

Not Important *Very Important*
 1 2 3 4 5

Crimping, Cabling, and Harnessing

Not Important *Very Important*
 1 2 3 4 5

Designing Systems for Space Radiation

Environments

Not Important Very Important
1 2 3 4 5

Initial General Space Hardware Training

Not Important Very Important
1 2 3 4 5

Launch Vehicle Environments, Loads and Testing

Not Important Very Important
1 2 3 4 5

Performance, Reliability, Redundancy for Space Products

Not Important Very Important
1 2 3 4 5

Remote sensing for Earth Science Applications

Not Important Very Important
1 2 3 4 5

Space Environment - Implications for Spacecraft Design

Not Important Very Important
1 2 3 4 5

Space Environment and Spacecraft Environmental Hazards

Not Important Very Important
1 2 3 4 5

Space Systems Fundamentals

Not Important Very Important
1 2 3 4 5

Space Vehicle Mechanisms: Elements of Successful Design

Not Important Very Important
1 2 3 4 5

Spacecraft Connector Mate and Demate

Not Important Very Important
1 2 3 4 5

Spacecraft Thermal Control

Not Important Very Important
1 2 3 4 5

2. How can others in the supply chain help you meet quality, delivery, and cost goals more effectively?

3. What are the primary reasons your company has moved sites out of California? In to California?

4. Additional Comments:

Share Your Thoughts

1. Please list other key training areas your company would like to pursue in the next 3 years.

THANK YOU FOR YOUR TIME

If you are interested in getting a copy of the summarized results of this survey please provide contact information and remove this page and turn it in separate from your survey responses. All information gathered here is stored in a separate database and will not be shared without your permission.

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- All Events**

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