

Intersect360
R E S E A R C H

CASC Panel Sessions Addressing the Missing Middle

Actionable Market Intelligence for High Performance Computing

Adoption Gap

- Within industry, there is a significant disconnect in technology adoption between large and small companies – the “Missing Middle”
- Large automotive and aerospace manufacturers have used scalable digital manufacturing for decades
- Not a “pyramid” shape market, but “tree shape”
- Over 80% of HPC spending in manufacturing is by supercomputing / high-end class users*
- Competitive disadvantage for smaller companies

Have vs. Have-Nots

Digital Manufacturing Usage among Commercial Respondents, by Number of Employees										
Employees	Mod/Sim HPC		Mod/Sim Desktop		3D Tools		2D / None		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
1-20	5	7.5%	15	20.8%	17	24.6%	23	56.1%	64	24.6%
21-100	5	7.5%	11	15.3%	22	31.9%	12	29.3%	51	19.6%
101-500	5	7.5%	15	20.8%	12	17.4%	3	7.3%	35	13.5%
501-2,000	9	13.4%	8	11.1%	6	8.7%	0	0.0%	24	9.2%
2,001-10,000	6	9.0%	6	8.3%	8	11.6%	1	2.4%	21	8.1%
10,000 or more	37	55.2%	17	23.6%	4	5.8%	2	4.9%	65	25.0%
Total	67	100.0%	72	100.0%	69	100.0%	41	100.0%	260	100.0%

Note: "Total" column may exceed sum of other columns because of a small number of respondents who did not specify a level of technology usage.

- 55% of the HPC usage is at companies with over 10,000 employees.
- 56% of those maxed out at 2D drawing have 20 or fewer employees.
- 62% of companies with over 10,000 employees are using HPC.
- Only 8% of companies with under 100 employees are using HPC.

Addressing the Missing Middle

- Levels of technology adoption
- In-chain suppliers, aftermarket, B2B, consumer
- The role of the large OEM
- The role of government and academia
- Sales channels for vendors – how to reach them?
- Refining and broadcasting the message

Fewer than 10% of U.S. manufacturers use HPC. There is a tremendous opportunity to expand the market.



Panel Session 1: Industry

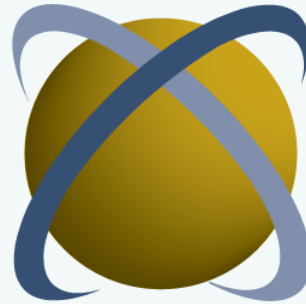
- Don Barnhart, i-Cyt
- Robert Bray, Simulia
- Robert Graybill, Nimbis Systems
- Sumit Mukherjee, Plastic Technologies



Panel Session 2: CASC / Providers

- Earl Dodd, Rocky Mountain Supercomputing Center
- Melyssa Fratkin, TACC
- Ashok Krishnamurthy, OSC
- Brian Kucic, R Systems
- David Turek, IBM





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