



IEEE SW Test Workshop

Semiconductor Wafer Test Workshop

Welcome to the IEEE SW Test Workshop



Jerry Broz, Ph.D.
SW Test General Chair



June 7 to 10, 2009
San Diego, CA USA

19th Annual SWTW 2009



Paradise Point and Spa, San Diego, CA



IEEE SW-Test Workshop

- **SW Test IS a Probe Technology Forum ...**
 - It is **“THE”** Conference for Wafer Test Professionals
 - Practical solutions to real problems
 - A balance mixture of semiconductor manufacturer and supplier presentations
- **Informal Conference ...**
 - Great social activities and informal discussions
 - Meet new people and have a little fun !



IEEE SW-Test Workshop

- **Sponsored by the IEEE Components, Packaging and Manufacturing Technology (CPMT) Society**
- **Leading international forum for scientists and engineers engaged in the research, design and development of revolutionary advances in micro-systems packaging and manufacture.**



IEEE COMPONENTS, PACKAGING AND
MANUFACTURING TECHNOLOGY SOCIETY





IEEE SW Test Workshop
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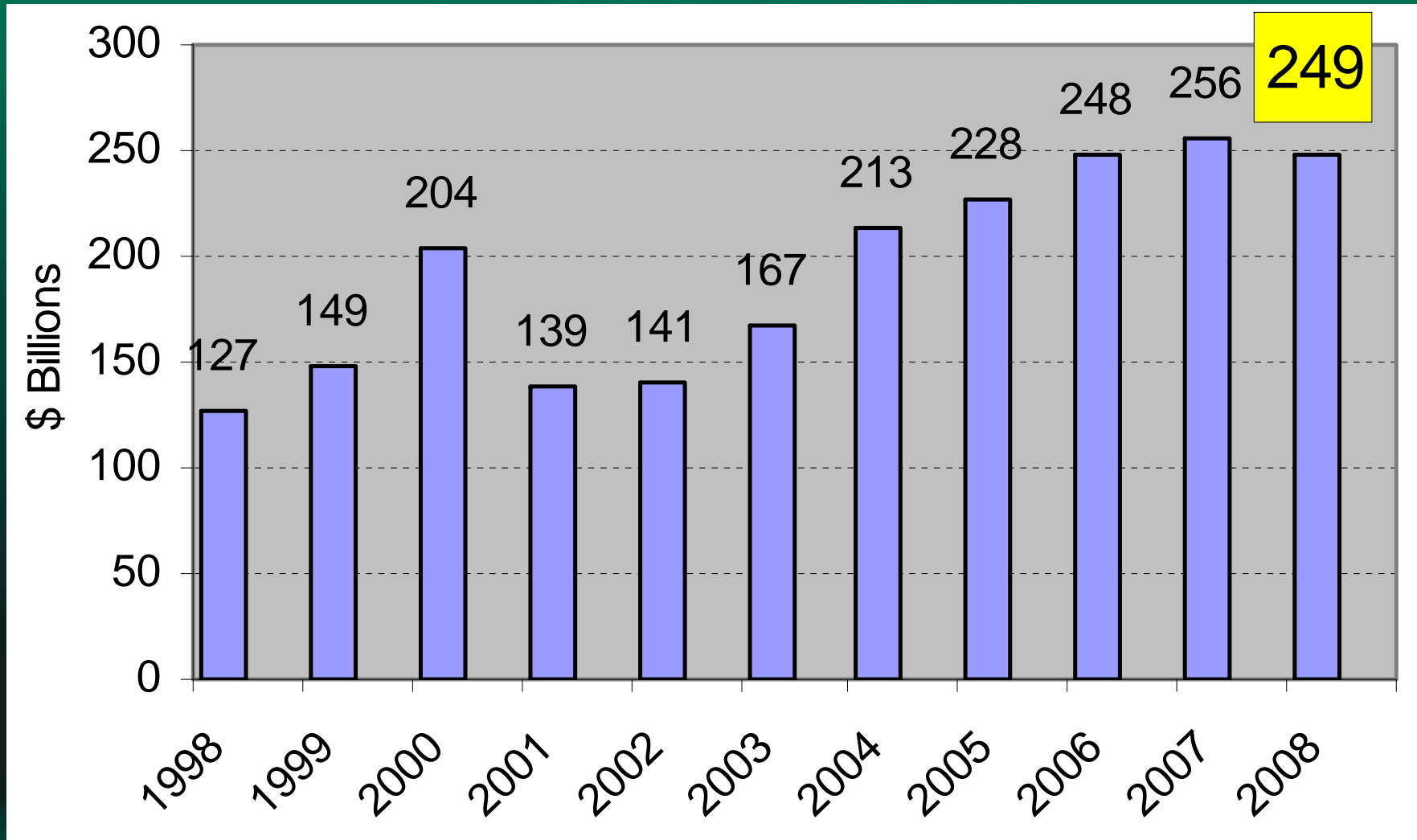
Probe Year In Review

Probe Year In Review

- What are the “GOOD THINGS” that happened since SW Test 2008 ???
- “The difficult we do immediately, the impossible takes a little longer!”
- **Overview**
 - Some Metrics
 - People in Probe
 - Mergers and Acquisitions
 - Keynote Speaker

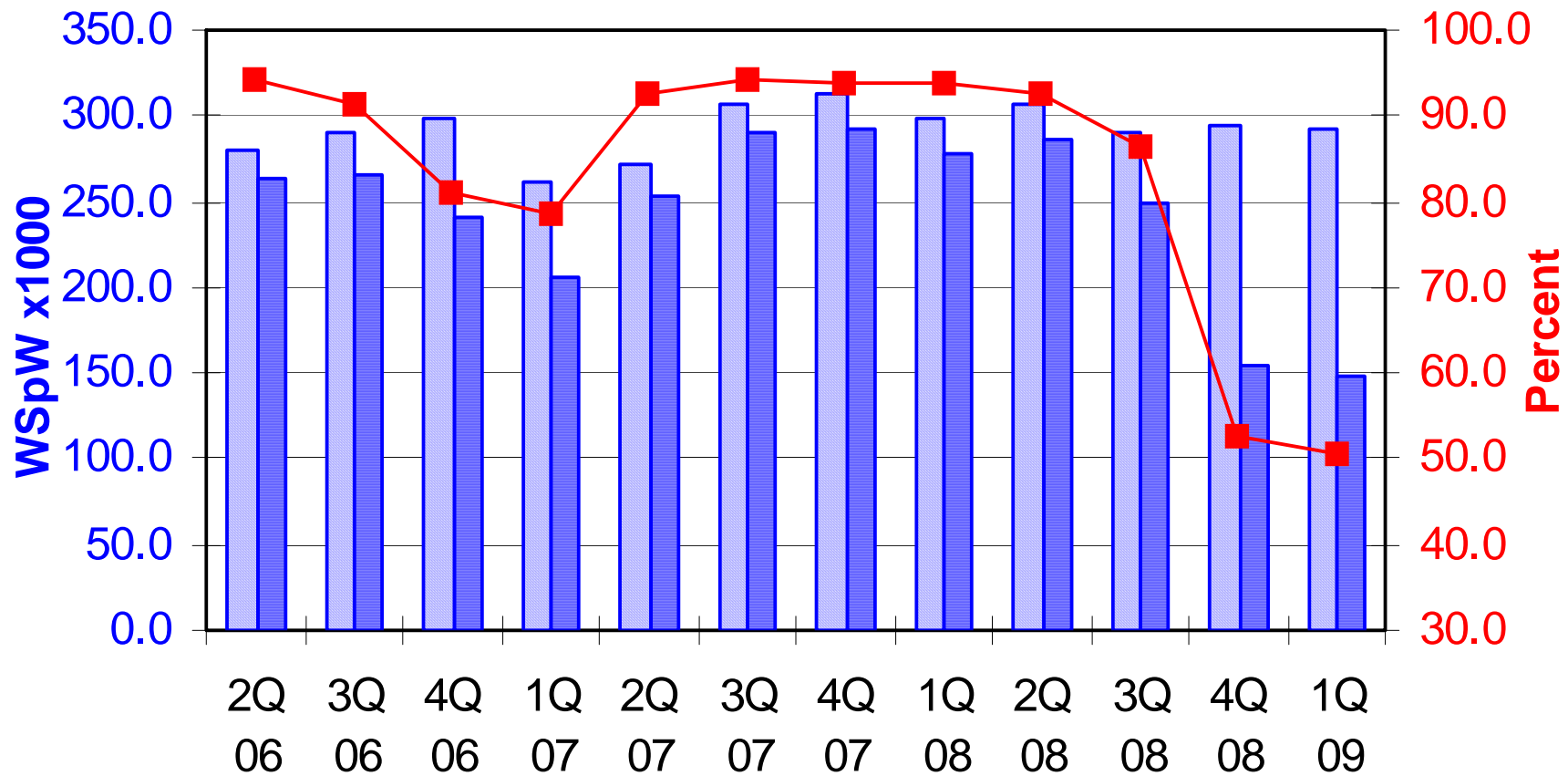


WW Semiconductor Revenue



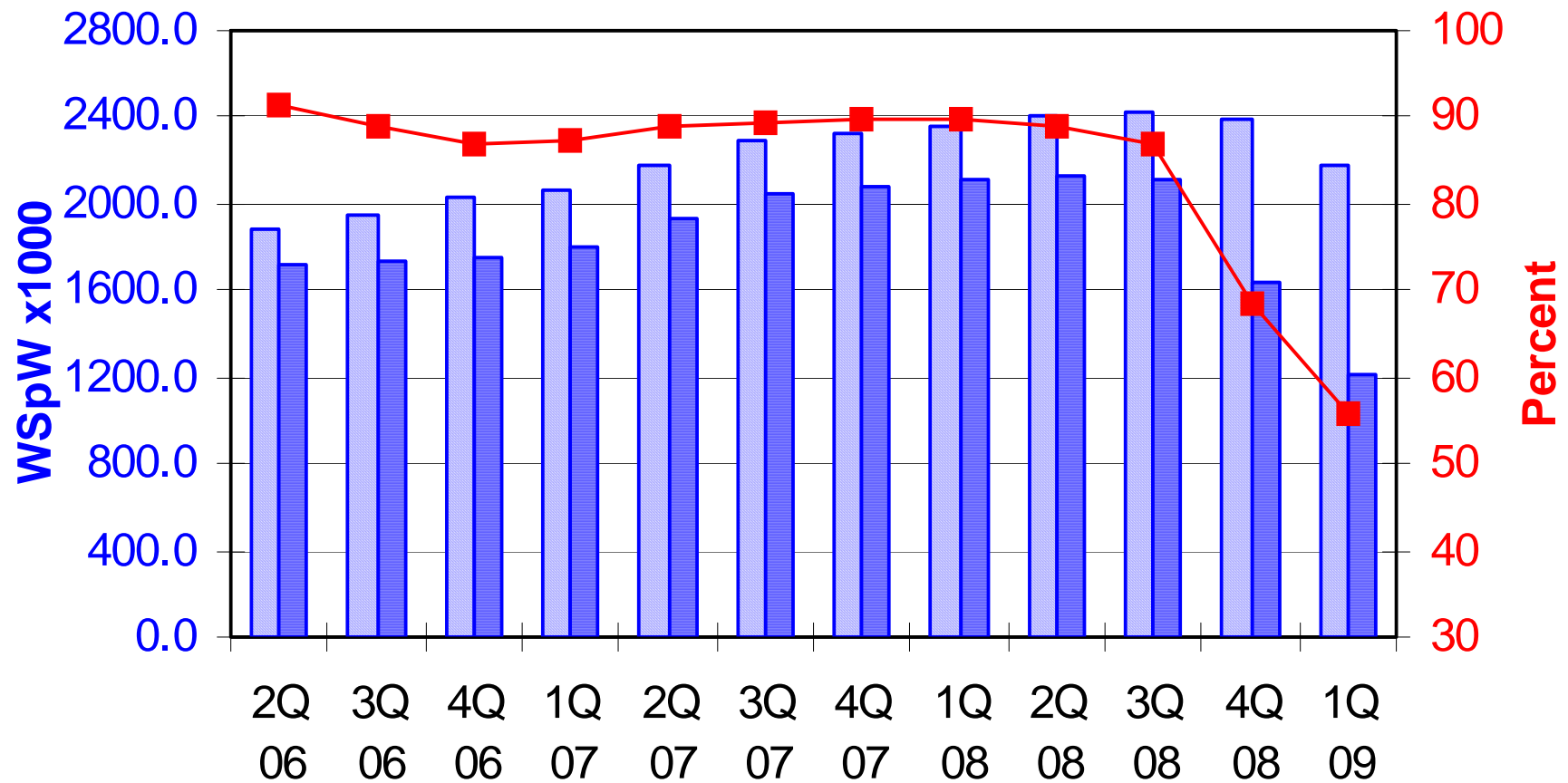
Foundry Q4 Capacity Utilization Dropped Below 60%

Foundry Wafers in MOS Total



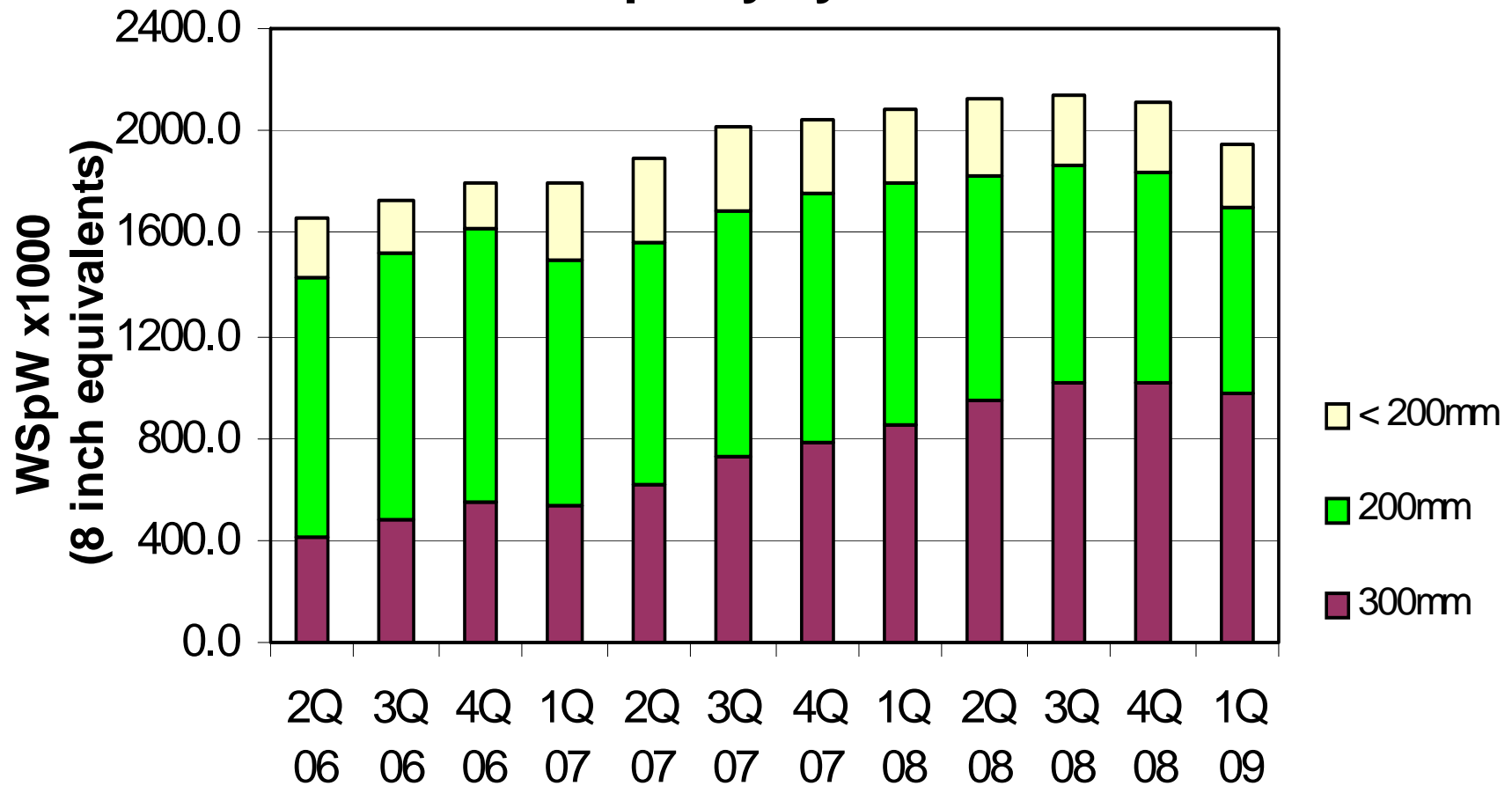
Wafer Starts Drop to below 70% of Capacity

TOTAL Semiconductors



50% Of Worldwide Wafer Capacity Is Now 300mm

MOS Capacity by Wafer-size



Key Metrics

	2006	2007	2008
Total PCs	228 M	268 M	291 M
Mobile PCs	-	109 M	143 M
Cell Phones	1.01 B	1.15 B	1.22 B
Image Sensors	\$1.9 B	\$2.4 B	\$5.0 B
LCD Displays	-	395 M	439 M



DRAMS And Flash Memories

		2006	2007	2008
DRAM	Sales	\$33.8 B	\$31.3 B	\$24 B
	Units	-	12.3 B	13.4 B
	10 ¹⁵ Bytes	~2,800	~5,400	~8,700
NAND	Sales	\$11.5 B	\$14.5 B	\$12.3 B
	Units	-	2.6 B	3.3 B
	10 ¹⁵ Bytes	~669	~1,700	~5,800
NOR	Sales	\$8.6 B	\$7.6 B	\$6.2 B
	Units	-	3.7 B	3.3 B
	10 ¹⁵ Bytes	~470	~2,730	~2,760



There's

More

... BUT ...

There was some GOOD stuff !



Cascade Microtech Celebrates 25th Anniversary

- **Founded by Eric Strid, Reed Gleason, and Dale Carlton in February 1984**
- **Licensed microwave probe technology from Tektronix**
- **IPO in December, 2004 raised \$74 Million**
- **A world leader in high frequency metrology and test fixturing**



10th Anniversary for the Burn In & Test Sockets Workshop

- March conference in Mesa, AZ, has very similar format to SW Test Workshop
- Tutorials, Exhibits, and an excellent Technical Program
- Fred Taber, General Chairman



Cascade Microtech Names Vice President of Engineering



- **Steve Harris**

- January, 2009
- Previously VP of Research, Development and Engineering at Electro Scientific Industries, Inc.
- BSEE from the University of Idaho.



SUSS MicroTec AG

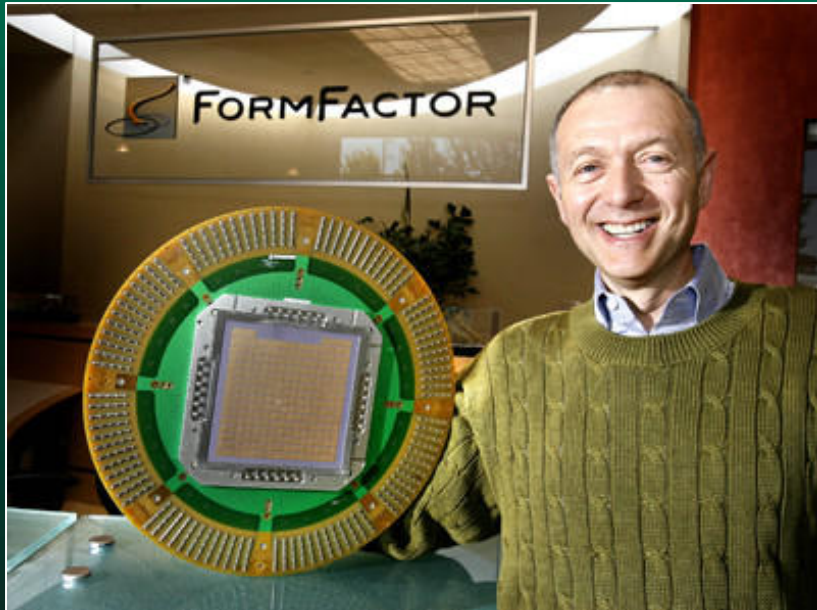
Names New CEO



- **Frank Averdung**

- February, 2008
- Over 20-years experience
- Previously Managing Director of Carl Zeiss SMS GmbH
- President and General Manager of Carl Zeiss SMT Inc., Peabody, Massachusetts, USA.
- Electrical Engineering Degree from RWTH Aachen

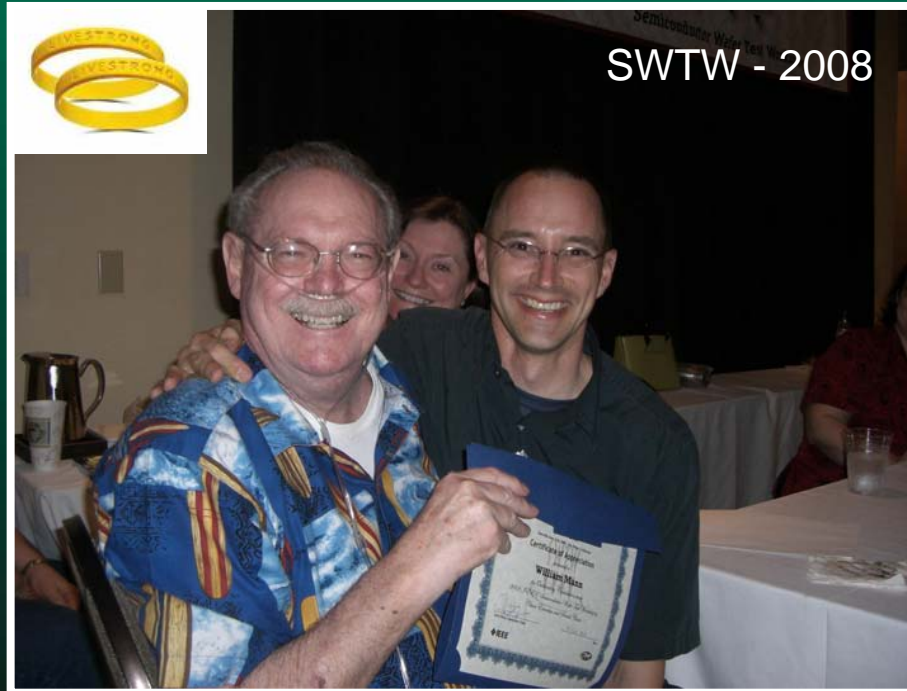
FormFactor Founder Retires



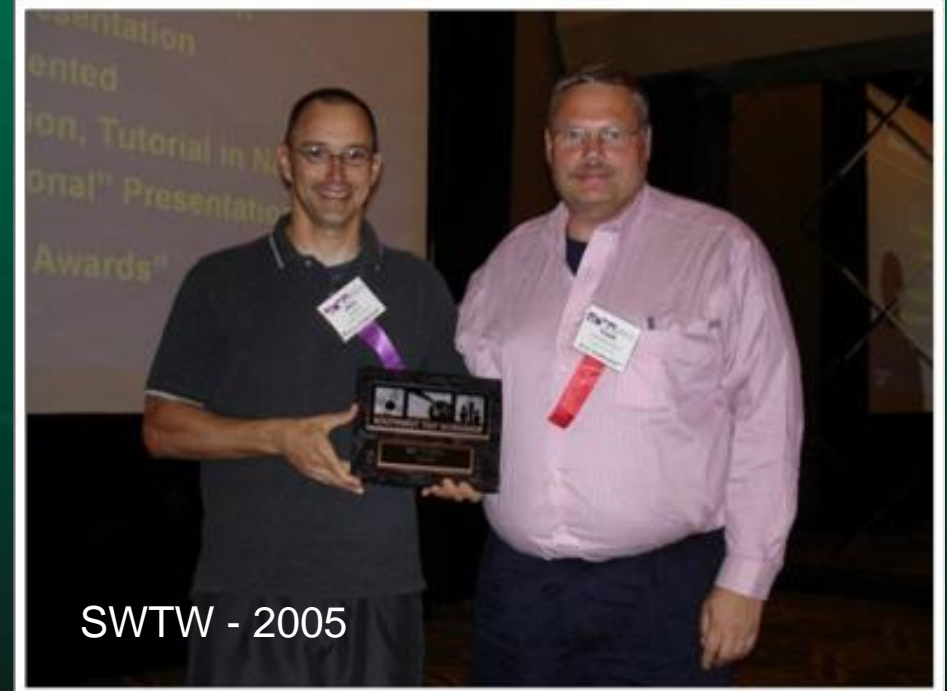
- Igor Khandros, Ph.D., founded FormFactor, Inc., in 1993.
- Dr. Khandros led the company from a private start-up of less than 50-employees to a publicly traded company with over 1200 employees worldwide.
- FFI technological developments paved the way for advanced and large area array wafer probe cards.
- For his contributions to semiconductor manufacturing, Dr. Khandros received the SEMI Award for North America, the highest award conferred by the SEMI industry association.



Updates on Good Friends



Bill Mann
SWTW Chair Emeritus



Frank Pietzschmann
Qimonda AG (Dresden)



LTX and Credence Complete Merger

- LTX-Credence was formed.
- New Combined Company Provides Focused, Cost-Optimized ATE Solutions for the Wireless, Computing, Automotive, and Entertainment Markets.

The logo for LTXcredence is displayed in a white rectangular box. The word "LTX" is in a bold, grey, sans-serif font. The letter "X" is stylized with two blue diagonal lines crossing it. The word "credence" is in a grey, lowercase, sans-serif font.

Investment Group Acquires MicroProbe

- MicroProbe Incorporated, has been acquired by an investment group lead by Flywheel Ventures.
- Flywheel-led group has also acquired Micromanipulator, a leader in analytical probing.
- Mike Slessor, Ph.D., joins the MicroProbe team as CEO.



There's

More

News

... BUT ...



Keynote Speaker



**“Economics Driving
Test Technology”**

Risto Puhakka

President

VLSI Research, Inc.

VLSIresearch

