



SVTC™

SVTC Technologies

Commercializing Innovation

www.svtc.com

Our History



an independent development services company for the commercialization of novel silicon-based technologies

2004

- Silicon Valley Technology Center is subsidiary of Cypress Semiconductor
- ATDF becomes independent subsidiary of SEMATECH

2007

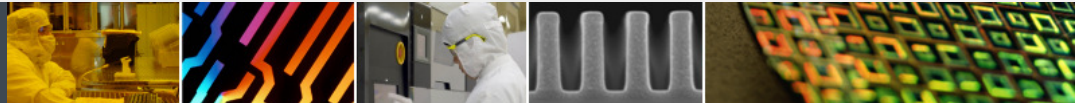
- SVTC Becomes an Independent, Privately Owned Company
- Tallwood Venture Capital & Oak Hill Capital Partners Invest for Growth

Jan 2008

- SVTC acquires ATDF from SEMATECH
- Expanded Capabilities for Customers including Analytical Services

July 2008

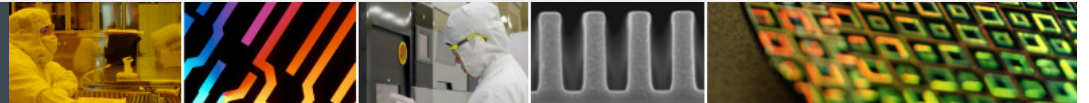
- SVTC expands capabilities to enable customers to move toward the next generation of MEMS processing



Value Proposition



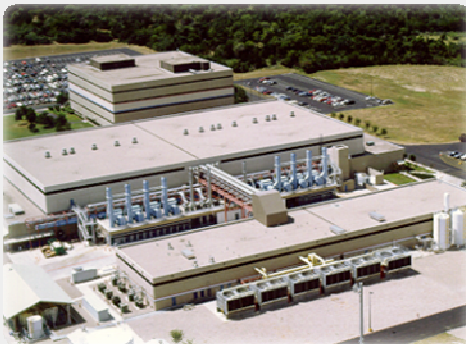
*We provide cost effective, hands-on access to
Fabs & Development Expertise that
enable customers to bring to market
innovative technologies & products in an
accelerated and IP independent way*



SVTC Fabs

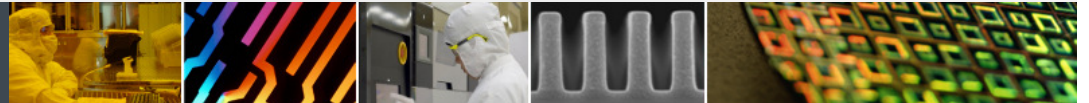


San Jose, Calif. (8")
27k sq. ft

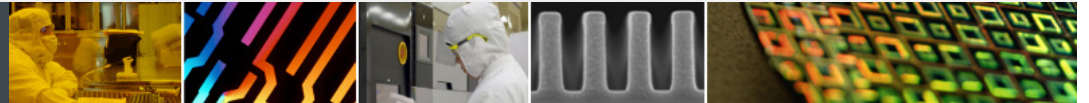
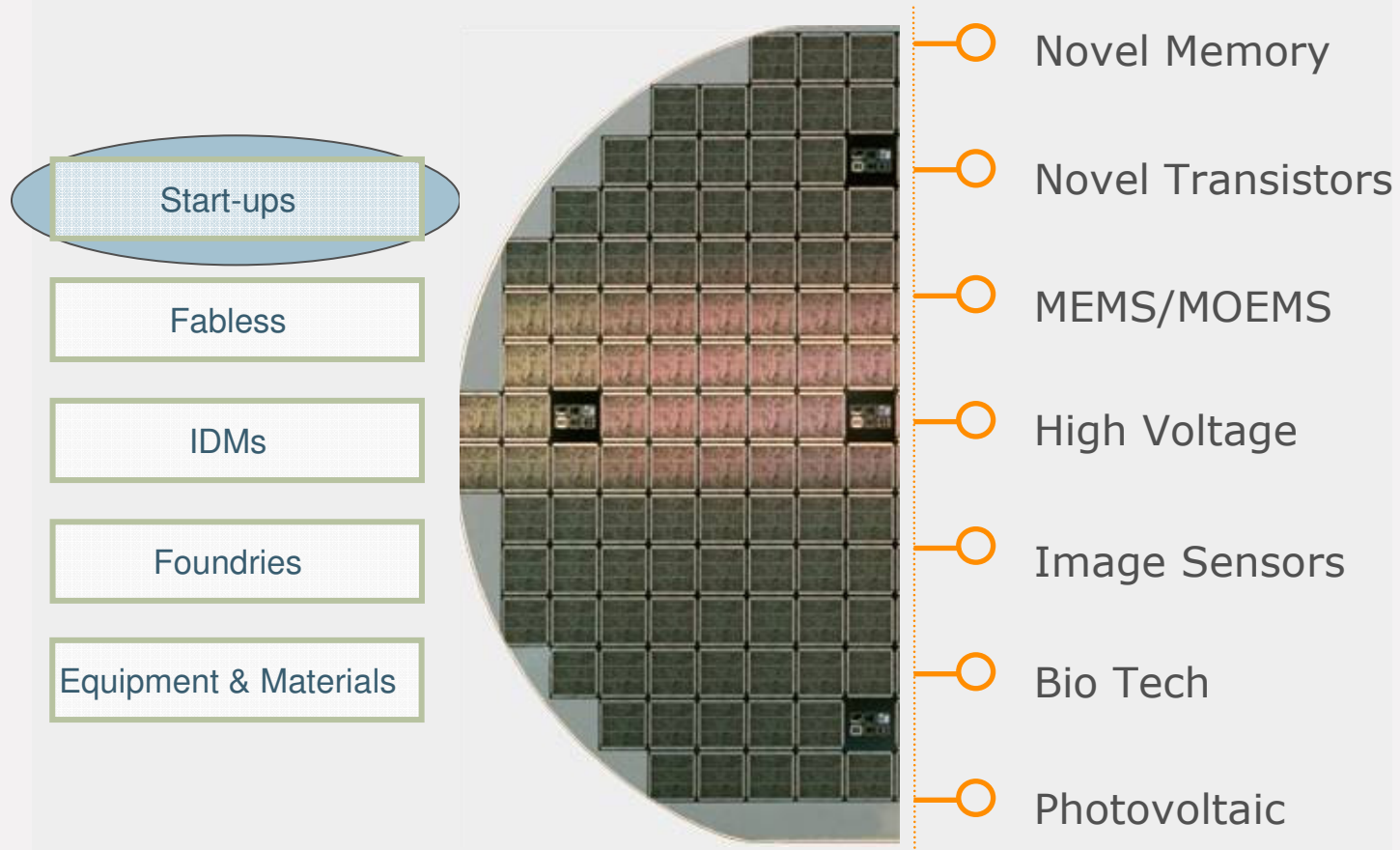


Austin, Texas (8")
68k sq. ft

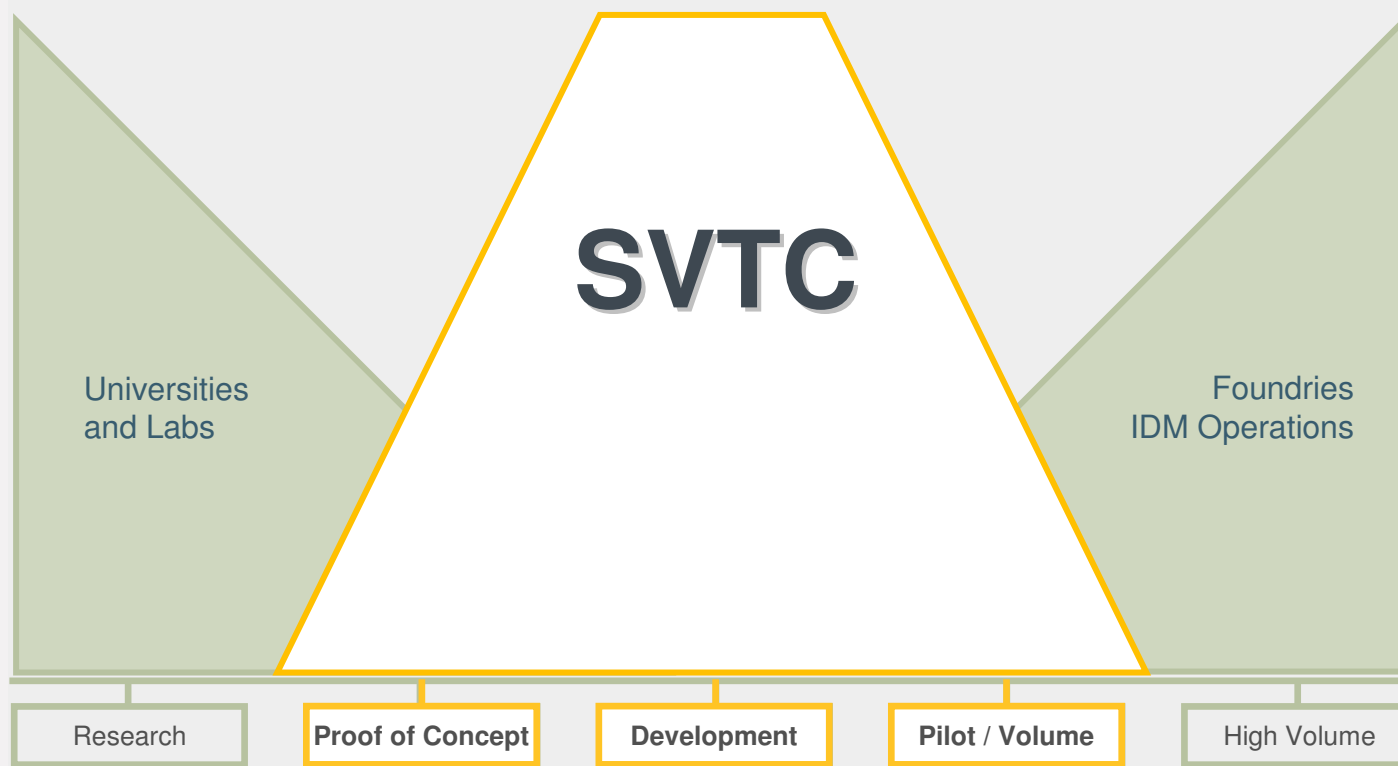
- 8" Facilities, Class 10 clean rooms
- 24x7 Operations & Maintenance support
- More than 250 production grade Process & Metrology tools:
 - Copper & Aluminum BEOL
 - 65nm (193nm ASML XT1250) Lithography
- Diverse set of Materials and Processes capabilities:
 - Advanced set of ALD & Novel Materials
 - Capability for e.g. High-K, Si-Ge, Nanotubes
- Process Library with over 2500 recipes
- Enabling Services: Engineering Support, Analytical Services, Reticle Procurement & OPC Services



Our Customers & their Markets



Focus on Commercialization



Innovation Phase



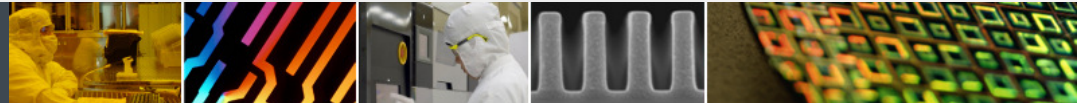
What is Commercialization?

R&D and Feasibility

- Built on University/R&D custom-home made tools
- Non clean rooms
- Materials not controlled
- Relaxed safety req's
- Processing by PhD's
- Repeatability???
- Tool availability low
- Long Cycle Time
- Costly

High Volume Manufacturing

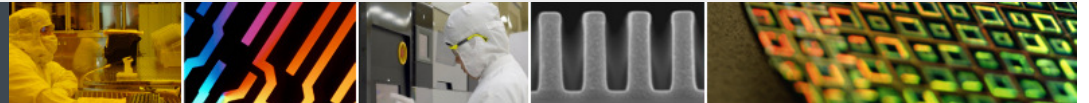
- Use of industry std, commercially available tools
- Class 10 or better clean rooms
- Materials Rigorously controlled
- Strict adherence to EHS regulations
- Processing by operators and technicians
- High degree of SPC control
- > 95% uptime
- Standard Flows/High Tool through put
- Low Cost manufacturing



How does SVTC fill the gap?

SVTC provides a development facility with a Manufacturing Mentality with IP protection and IP rights

- Provides Process and Integration Engineering
- Provides full library of baseline process recipes
- Development on commercially available and supported tools
- Consideration for cost effective manufacturing
- Mask and layout services
- Fast Cycles of Learning
- Process windowing for device
- Electrical Test/Process Monitors
- Materials Analysis/Failure Analysis
- Full Process Flow Documentation

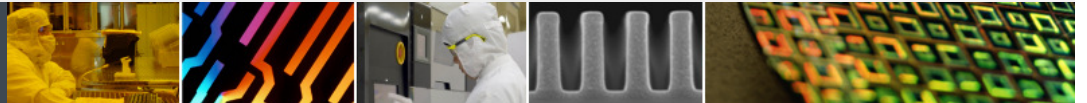


Protecting Your IP



SVTC and its employees will provide the security controls necessary for the protection of people, property and proprietary information at SVTC sites, and work with our partners to ensure they also use these controls to maintain confidentiality at our sites.

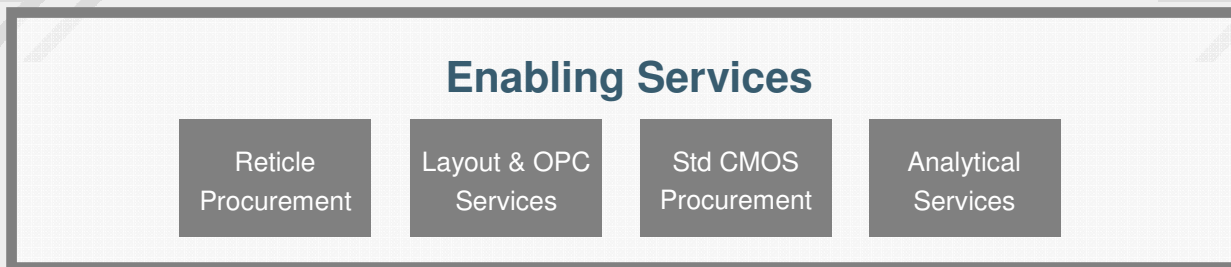
- NDA, Contract
- Workplace
- Access
- Fabs & Labs
- Knowledge
- Systems
- Training/Certification





SVTC™

Full Range of Services



Established Reticle Partnerships :

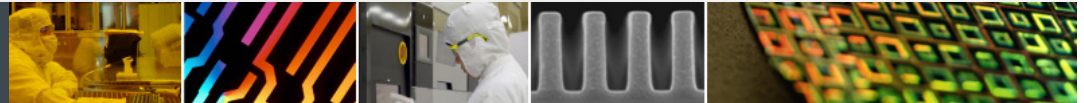


Established Analytical Partnerships:



LAB

FAB



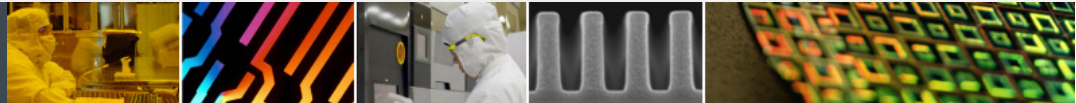
New Elements: Classic & Beyond

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt									
		Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu		
		Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr		

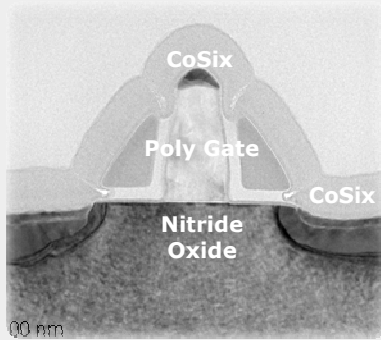
Classic CMOS Fab

Additional at SVTC

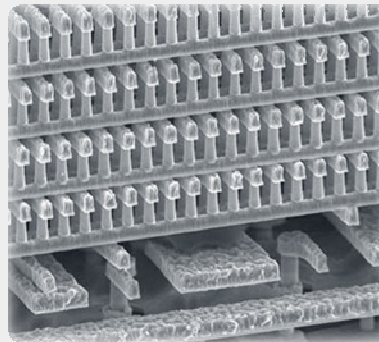
Element Review Board (ERB) enables safe and efficient introduction of new materials into facilities



Technology Examples



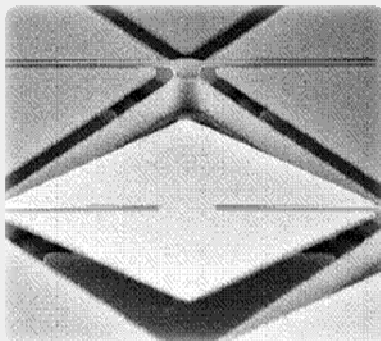
85nm Transistor



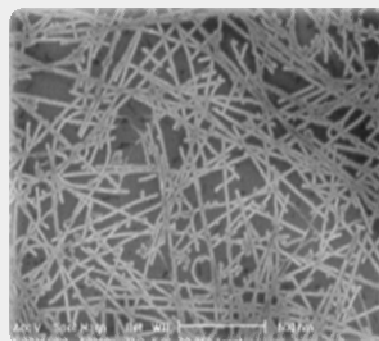
3D Memory



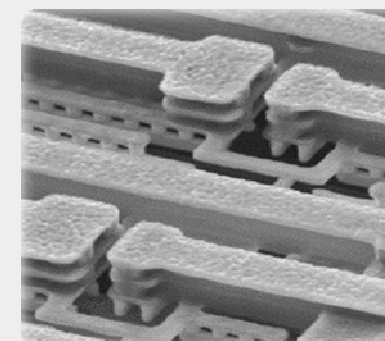
Deep Si Etch



Micro-Mirrors



Carbon Nanotubes



Cu/Low k BEOL



Summary



- Key considerations for commercialization of Innovation
 - IP protection/Independence
 - Fast Time to Market/Short Cycles of Learning
 - Transferable Processes
 - Low Cost Manufacturing
 - High Yield

