



DoD SBIR/STTR Economic Impact Study

Preliminary Results

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Background

- Largest, most comprehensive SBIR study ever undertaken
 - Nearly 17,000 DoD Phase II SBIR/STTR contracts
 - Start dates FY1995 through FY2012
 - Total award value \$14.3B
 - Over 4,400 different companies
 - Many acquired, merged, changed names, or out of business
 - Over 93% of companies (with 95.7% of records) complied with data requests
 - Only 1.8% of companies refused to participate
- Builds on foundation of prior national-level SBIR/STTR studies:
 - ✓ *Air Force SBIR/STTR Economic-Impact Study, 2000-2013 end dates (2014)**
 - ✓ *Navy SBIR/STTR Economic-Impact Study, 2000-2013 end dates (2016)**



Methodology

- Initial award and contact info from DoD SBIR/STTR awards database
 - Awards verified using CCR, FPDS, DTIC reports, company input
 - Many additions, corrections to total data set
- Team of 12 experienced market and economic research professionals
 - Standardized methodology, with simple, easy questions
 - Continuous team training and group feedback
 - Emphasized courteous approach, minimal time intrusion
 - Encouraged record trading for different perspectives and approaches
- Assurances that financial data will not be shared with public or government
 - Only aggregated financial data is reported
 - Companies may be asked if willing to participate in written or video Success Story
 - Participation may contribute to future of SBIR program



Methodology, *cont.*

- Basic questions included:
 - **Total sales** of new products and services (including R&D) related to DoD SBIR/STTR outcomes?
 - **Total military sales** (direct to US military or via defense Prime Contractors)?
 - **Other sales** (licensing income, sales by licensees or spin-out companies)?
 - **Other economic results** (outside investments, spin-out creation, sale of company)?
- University of Colorado economists will analyze survey data using **IMPLAN model**:
 - Estimate multiplier effects (*direct and induced*) on national economy
 - Total economic output; value added; employment; labor income; tax revenues

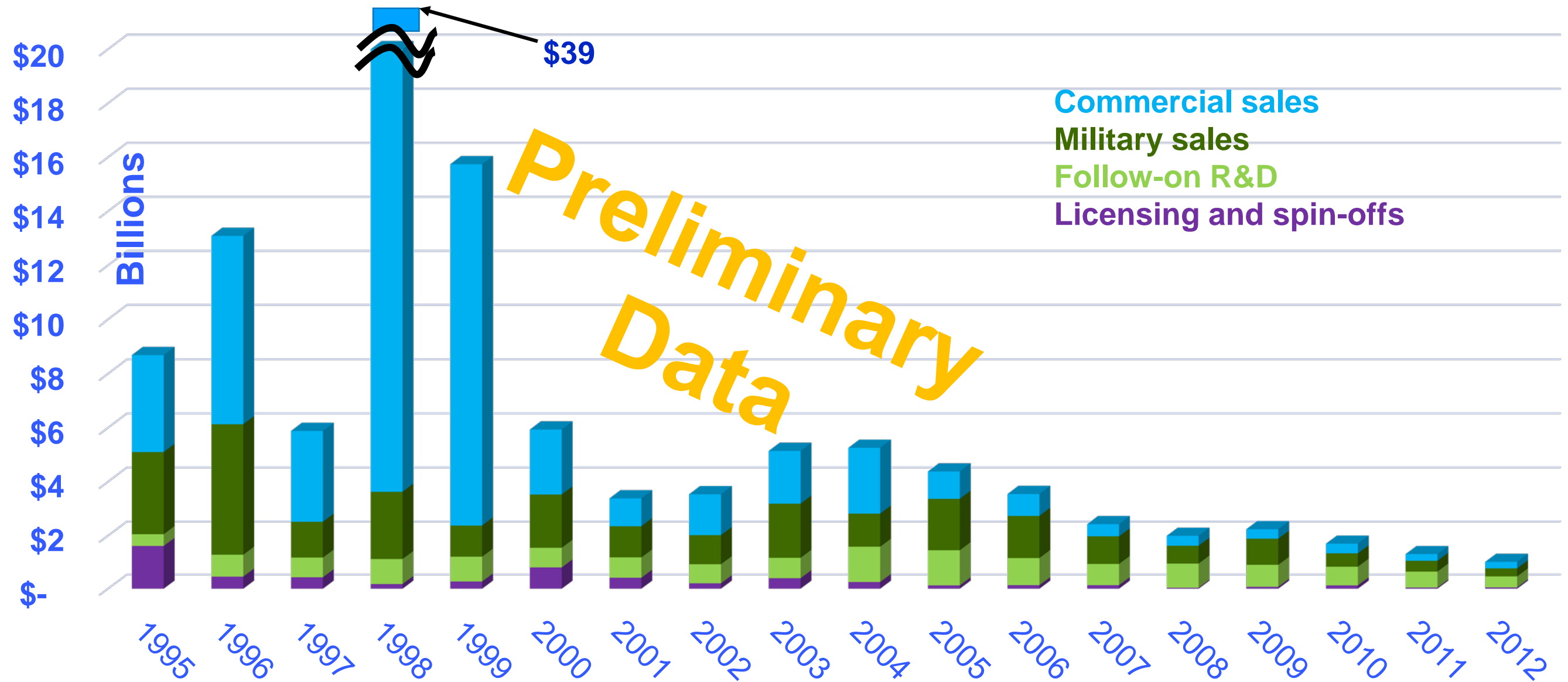


Preliminary Results*

- More than 60% of contracts had follow-on economic results
- Total combined sales of \$125 billion
 - Military sales total \$28 billion
 - Commercial sales total \$76 billion
 - Sales numbers are extremely conservative
- Estimated total economic impact of \$325 billion
 - Estimated overall ROI 23:1
 - Does not include investments, sale of companies, etc.
- Results by year show accumulating growth of economic impacts



Follow-on Revenues by Year of Award



Est. ROI by Year of Award (3-year avg.)





DoD SBIR/STTR Success Story Examples

To view dozens of DoD SBIR/STTR Success Story videos and more, go to:
TechLinkCenter.org : Activities : Economic Impact Studies

Insitu Group Inc.

N94-130 “Development of a Prototype Research Facility for Aerosondes within CIRPAS”
(Center for Interdisciplinary Remotely-Piloted Aircraft Studies)
(N00014-96-C-0115 awarded 9/30/96)

- Led to 1st transatlantic UAV flight
 - Aug. 21, 1998: 26 hrs, 2 gal fuel
- SBIR “instrumental” for NextGen UAVs
 - “100% attributable to this SBIR award”
 - Steve Sliwa, former CEO
- Led to 2008 acquisition by Boeing
- >1 million hours of flight time
- “Single-handedly grew local area out of HUB zone”



Versatron Corp.

N93-096 “Low Cost Control System Components for Gun Launched Projectiles”
(N00178-95-C-3027 awarded 12/15/94)

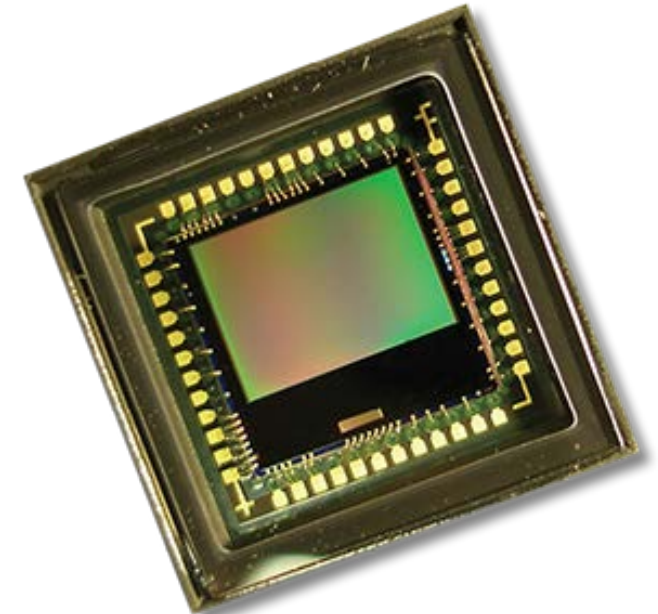
- High-G Control Actuation System (CAS): 15,000 G's
- Enabled Excalibur (M982) 155mm precision-guided artillery round with extended range (25 miles)
- Integrated GPS for high precision (5m – 20m CEP), low collateral damage
- Highly successful, next-gen family of projectiles for the U.S. Army and Marine Corps artillery
- Versatron now part of General Dynamics OTS
- GD-OTS has delivered over 10,000 CAS units to Raytheon for Excalibur



Photobit Corp.

BMD097-003 “Visible CMOS Imager with Ultra High Dynamic Range”
(F33615-97-C-1111 awarded 5/1/97)

- Helped develop CMOS technology now in nearly every cell phone, camera, security system, and newer model vehicle worldwide
 - Spun out of NASA JPL in 1995 with patent licenses
 - Phase II SBIRs from NASA and BMD0 in FY1997
 - Army and DARPA Phase II SBIRs in FY1998
 - Acquired by Micron Technology in 2001
 - Co-inventors, founders Drs. Eric Fossum & Sabrina Kemeny noted that the DoD SBIRs focused on performance, were critical to company’s success



“Success has many mothers and fathers” – Eric Fossum 2015



Physical Research, Inc.

SB971-038 “Design of GPS Receiver Module on a Single Silicon Chip”
(DAAH01-98-C-R142 awarded 6/11/98)

- Led to Bluetooth and WiFi chips, merged into **Broadcom**, with major share of mobile market
 - PI Reza Rofougaran, fled Iran in 1980s, ‘98 UCLA PhD
 - Founded Innovent Systems (2000) with sister Maryam
 - 2002 Broadcom merger for \$440M stock
 - Broadcom co-founder Henry Samueli was Reza’s UCLA mentor
 - Now at Movandi, both named among “Top 5 Technology Innovators” for 2017



Reza: *"This is the only place in the world this could happen. There are no limits, no discrimination for any solid business idea and a person who can implement it."*



Questions?

