



WICHITA STATE
UNIVERSITY

First Friday Entrepreneurship Zoom SBIR/STTR Grants Leveraging America's Seed Funds

Debra Franklin

AVP, Strategic Initiatives

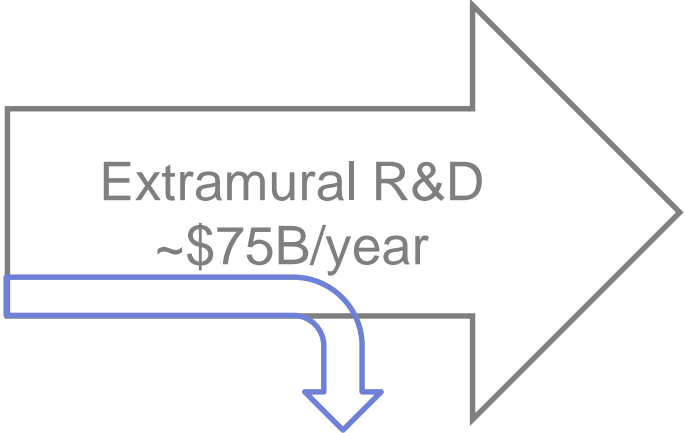
October 4, 2019



FEDERAL Extramural R&D



federal government



businesses



federally funded laboratories



~\$3B/year
3.2% set-aside



small businesses



universities



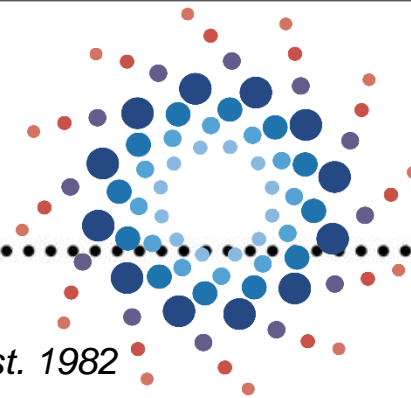
Defined



SBIR · STTR
America's Seed Fund

- Over \$3 Billion per year
 - In non-recourse contracts and grants
 - To small U.S. owned companies
 - To develop new products and services
 - That are based on innovative, unproven concepts and technologies.
-
- Over 5,000 new awards every year

Goals



SBIR • STTR
America's Seed Fund

Small Business Innovation Research (SBIR) *est. 1982*

- Stimulate technological innovation
- Use small business to meet Federal R&D needs
- Foster and encourage participation by women and socially and economically disadvantaged persons in technological innovation
- Increase private-sector commercialization of innovations derived from Federal R&D

Small Business Technology Transfer (STTR) *est. 1992*

- Stimulate and foster scientific and technological innovation through cooperative research and development carried out between small business concerns and research institutions
- Foster technology transfer between small business concerns and research institutions

SBIR and STTR were reauthorized on December 23, 2016 (P.L. 114-840) through September 30, 2022

Three Phases of SBIR/STTR Programs

PHASE I: EVALUATE SCIENTIFIC MERIT & FEASIBILITY

- Award Amount: \$100,000 – \$225,000, typically \$150,000
- Project Duration: 6-9 months



PHASE II: CONTINUE R/R&D FOR PROTOTYPES OR PROCESSES

- Award Amount: \$1,000,000 (guideline), \$1,500,000 (max.)
- Project Duration: 2 years
- Additional Phase II awards can be made



PHASE III: COMMERCIALIZATION OF PHASE II RESULTS

- Federal or Private Funding (non-SBIR/STTR funds)
- No dollar or time limits



Eligibility and Readiness

- 1 Organized for-profit U.S. business
- 2 At least 51% U.S. owned by individuals and independently operated
- 3 500 or fewer employees
- 4 Principal Investigator's (PI) primary employment with small business during project

SBIR/STTR Eligibility Checklist and Readiness Assessment

The Eligibility and Readiness Assessment checklists will assist you in examine several factors to determine if your business may be eligible and ready for the SBIR/STTR program.

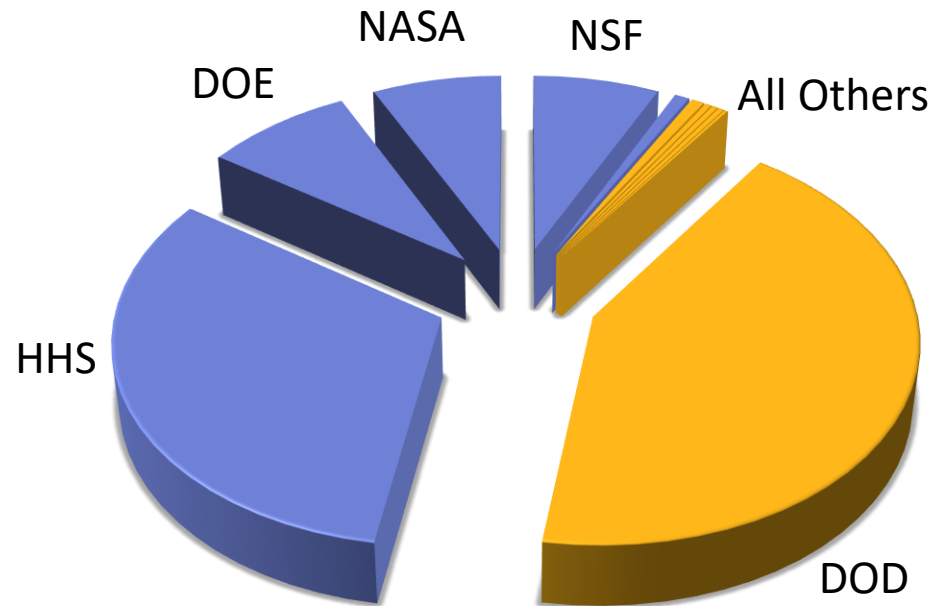
Eligibility Checklist

- Yes No Does your business employ 500 or fewer employees, including affiliates?
- Yes No Is your business at least 51% owned and operated by a U.S. citizen or permanent resident?
- Yes No Is your business a for-profit entity?
- Yes No Will your Principal Investigator (main researcher for SBIR) devoting at least 51% of their time to the business?

Are You Ready to Get Started? - Readiness Assessment

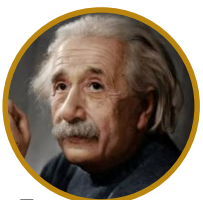
- Yes No Have you identified specific feasibility issues to research in Phase I that you can complete in accordance with SBIR/STTR deadlines? (Approximately 6 months)
- Yes No Do you understand the SBIR/STTR programs and their requirements?
- Yes No Have you identified how Phase I success will be measured?
- Yes No Have you identified an SBIR/STTR topic that fits with your innovation?
- Yes No Have you completed the required registrations? (DUNS, SAM & SBA Company Registration, etc.)
- Yes No Do you have access to all facilities, equipment, and resources necessary to conduct the project?
- Yes No Have you begun to consider who will be part of your development team and partners?
- Yes No Do you have time to create a winning proposal? (Average of at least 40 hours for your 1st proposal)

Agency Information



~ \$2.5B in FY2015 across all agencies

- Grants (good ideas)
 - Contracts (specific problem or need)
- Focus on what is asked for not what you think is needed.*



Agencies with SBIR and STTR Programs	Budget
Department of Defense (DOD)	\$ 1.070 B
Department of Health and Human Services (HHS), including the National Institutes of Health (NIH)*	\$797.0 M
Department of Energy (DOE), including Advanced Research Projects Agency – Energy (ARPA-E)	\$206.1M
National Aeronautics and Space Administration (NASA)	\$ 180.1 M
National Science Foundation (NSF)	\$176.0 M
Agencies with SBIR Programs	Budget
U.S. Department of Agriculture (USDA)	\$20.3M
Department of Homeland Security (DHS): Science and Technology Directorate (S&T) and Domestic Nuclear Detection Office (DNDO)	\$17.7 M
Department of Commerce: National Oceanic and Atmospheric Administration (NOAA) and National Institute of Standards and Technology (NIST)*	\$8.4M
Department of Transportation (DOT)	\$7.9 M
Department of Education (ED)	\$7.5 M
Environmental Protection Agency (EPA)	\$4.2 M

*NIH also issues contracts

Search for Topics

(Example: broadband)

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America's Seed Fund
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Broadband Search

SUCCESS STORIES

GET THE 411



Learn About

- Overview
- Policy Directive
- Authorization Act
- Intellectual Property



I'm a(an)...

- Applicant
- Awardee
- Investor
- Large Business



I Want to...

- Start a Small Business
- Register my company
- Update my company profile/commercialization

Agency

- Department of Agriculture (0)
- National Institute of Food and Agriculture (0)
- Department of Commerce (0)
- National Institute of Standards and Technology (0)
- National Oceanic and Atmospheric Administration (0)
- Department of Defense (13)
- Air Force (5)
- Army (3)

Phase

- Phase I (13)
- Phase II (13)

Program

- SBIR (10)
- STTR (3)

Year

- 2019 (13)

reaching out to the respective Agency for clarification regarding acceptable proposals (<https://www.sbir.gov/agency-contacts>).

Displaying 1 - 10 of 13 results

Download ▾

Close Date (ascending) ▾

AF19A-T017: Tunable bioinspired spatially-varying random photonic crystals

Release Date: 11-28-2018

Open Date: 01-08-2019

Due Date: 02-06-2019

Close Date: 02-06-2019

TECHNOLOGY AREA(S): WEAPONS OBJECTIVE: Develop controlled (tunable) spatially-varying materials for investigating reflectance and transmission of visible light, high resolution, high apparent temperature, broadband solution for infrared hardware-in-the-loop scene projection. DESCRIPTION: New methods have recently shown that photonics crystals can be spatially varied in a smooth manner without ca ...

STTR

Department of Defense

Air Force

N19A-T006: Atomic Triaxial Magnetometer

Release Date: 11-28-2018

Open Date: 01-08-2019

Due Date: 02-06-2019

Close Date: 02-06-2019

TECHNOLOGY AREA(S): SENSORS, ELECTRONICS, BATTLESPACE OBJECTIVE: Develop a low-noise prototype triaxial magnetometer by leveraging recent advances in atomic magnetometers. DESCRIPTION: Advancements over the last decade in atomic vapor magnetometers have resulted in room temperature devices with sensitivities rivaling Superconducting Quantum Interference Devices (SQUIDS). At the same time, these adv ...

STTR

Department of Defense

Navy

N19A-T023: Photonic-Integrated-Circuit Spectrometer

Release Date: 11-28-2018

Open Date: 01-08-2019

Due Date: 02-06-2019

Close Date: 02-06-2019

TECHNOLOGY AREA(S): CHEM BIO_DEFENSE, SENSORS OBJECTIVE: Develop a fully-packaged short-wave infrared (SWIR, 900-1600 nm) spectrometer that uses photonic integrated circuit (PIC) technology and meets these requirements: compact (handheld, < 0.5 kg), compatible with a single-mode optical source, broadband (>200 nm, >128 channels), precise (10% quantum efficiency). Such a PIC spectrometer could the ...

STTR

Department of Defense

Navy

A19-009: New Concept for a Low Distortion, High-Power, High-Efficiency mm-Wave RF Power Amplifier Circuit

Release Date: 11-28-2018

Open Date: 01-08-2019

Due Date: 02-06-2019

Close Date: 02-06-2019

Schedule of Multiple Agency Postings @ SBIR.gov

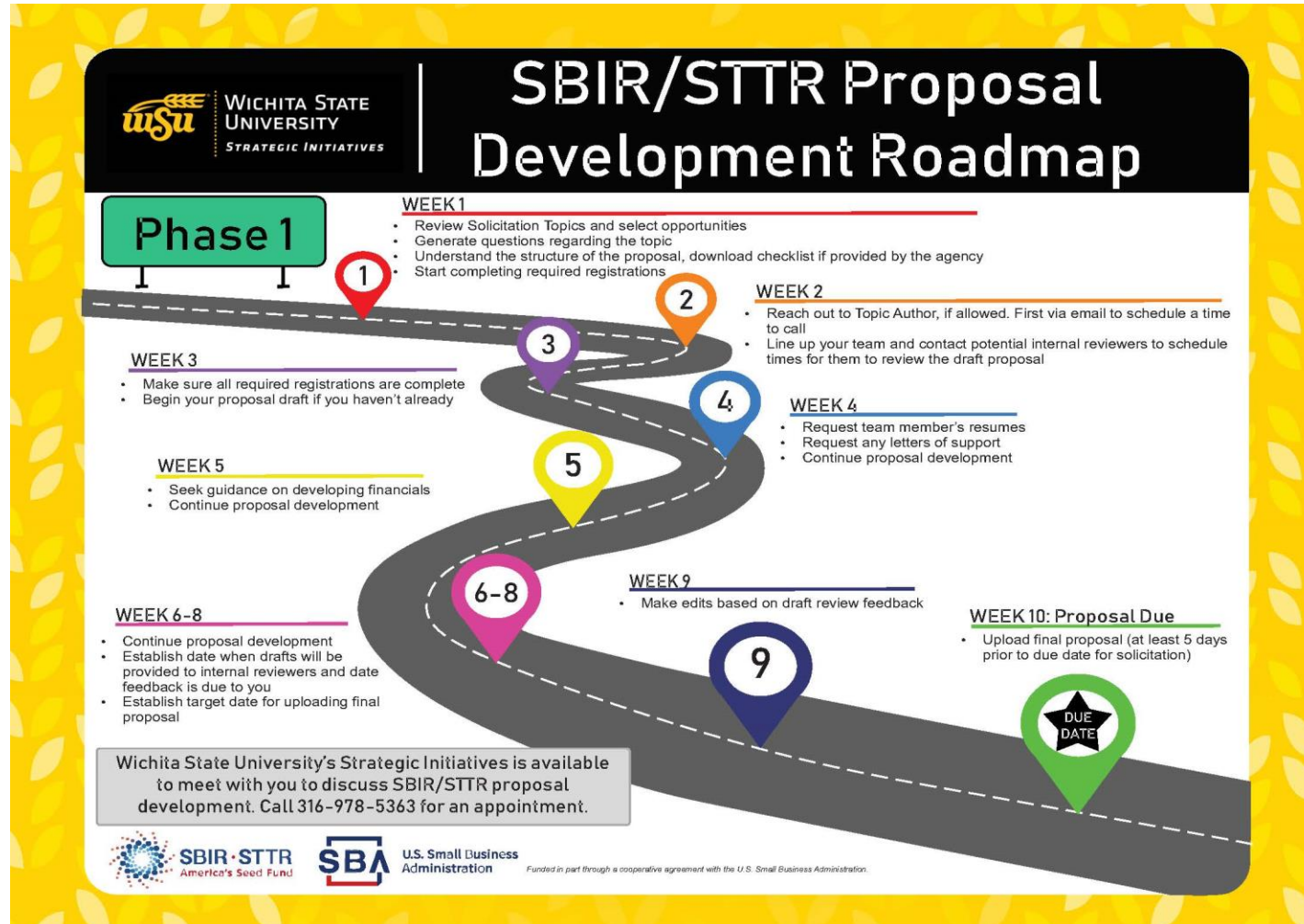
Solicitation Agency Program Release Date Open Date Due Date

Solicitation	Agency	Program	Due Date	Close Date
DoD 2019 A STTR Solicitation	DOD	STTR	02/06/2019	02/06/2019
DoD 2019.1 SBIR Solicitation	DOD	SBIR	02/06/2019	02/06/2019
HHS Funding Opportunities	HHS	BOTH	n/a	MULTIPLE

Solicitation	Agency	Program	Release Date	Open Date	Due Date	Close Date
HHS Funding Opportunities	HHS	BOTH	MULTIPLE	MULTIPLE	n/a	MULTIPLE

Solicitation	Agency	Program	Release Date	Open Date	Due Date	Close Date
NOAA SBIR FY 2019 Notice of Funding Opportunity- Phase I	DOC	SBIR	11/08/2018	11/08/2018	01/08/2019	01/08/2019
HIGH INTENSITY THERMAL EXCHANGE THROUGH MATERIALS AND MANUFACTURING PROCESSES (HITEMP) (SBIR/STTR)	DOE	BOTH	08/09/2018	08/09/2018	12/11/2018	12/11/2018*
NSF STTR Phase I (December 2018)	NSF	STTR	08/06/2018	11/03/2018	12/04/2018	12/04/2018
NSF SBIR Phase I (December 2018)	NSF	SBIR	08/06/2018	11/03/2018	12/04/2018	12/04/2018
Fiscal Year (FY) 2019 Request for Applications (RFA)	USDA	SBIR	07/23/2018	07/23/2018	10/25/2018	10/25/2018
DoD 2018.C STTR Solicitation	DOD	STTR	08/24/2018	09/24/2018	10/24/2018	10/24/2018
DoD 2018.3 SBIR Solicitation	DOD	SBIR	08/24/2018	09/24/2018	10/24/2018	10/24/2018
NSF SBIR Phase I (July 2018)	NSF	SBIR	03/14/2018	03/14/2018	07/10/2018	07/10/2018
NSF STTR Phase I (July 2018)	NSF	STTR	03/14/2018	03/14/2018	07/10/2018	07/10/2018
DoD 2018.B STTR Solicitation	DOD	STTR	04/20/2018	05/22/2018	06/20/2018	06/20/2018
DoD 2018.2 SBIR Solicitation	DOD	SBIR	04/20/2018	05/22/2018	06/20/2018	06/20/2018
FY 2018 NIST SBIR Phase I Notice of Funding Opportunity (NOFO)	DOC	SBIR	01/18/2018	01/18/2018	04/04/2018	04/04/2018
FY18 DOT SBIR Solicitation	DOT	SBIR	01/17/2018	01/17/2018	03/20/2018	03/20/2018

Application Process



Required Registrations (PTAC provides assistance)	N A S A	H H S	N S F	D O E	D O D
DUNS	X	X	X	X	X
SAM.gov	X	X	X	X	X
Company Registry (SBIR.gov)	X	X	X	X	X
Grants.gov		X		X	
eRA Commons		X			
NSF FastLane			X		
PAMS				X	
Electronic Handbook (EHB)	X				
fedconnect.net				X	
Funding Accountability & Transparency Act Sub-award Reporting System				X	
DoD Submission Website					X

Next Steps



- Explore the SBIR.gov website for potential topics
 - Review of closed topics for most recent 18 months provide context for future solicitations
 - For help: make appointment with Wichita State and or KSBDC / KSBTDC
- Complete or update required registrations
 - For help: make appointment with Kansas Procurement Technical Assistance Center (PTAC)
- Review previous solicitations in your topic area
- Consider development team prospects (expertise & facilities)
- Watch SBIR.gov website for future releases (topics & dates)

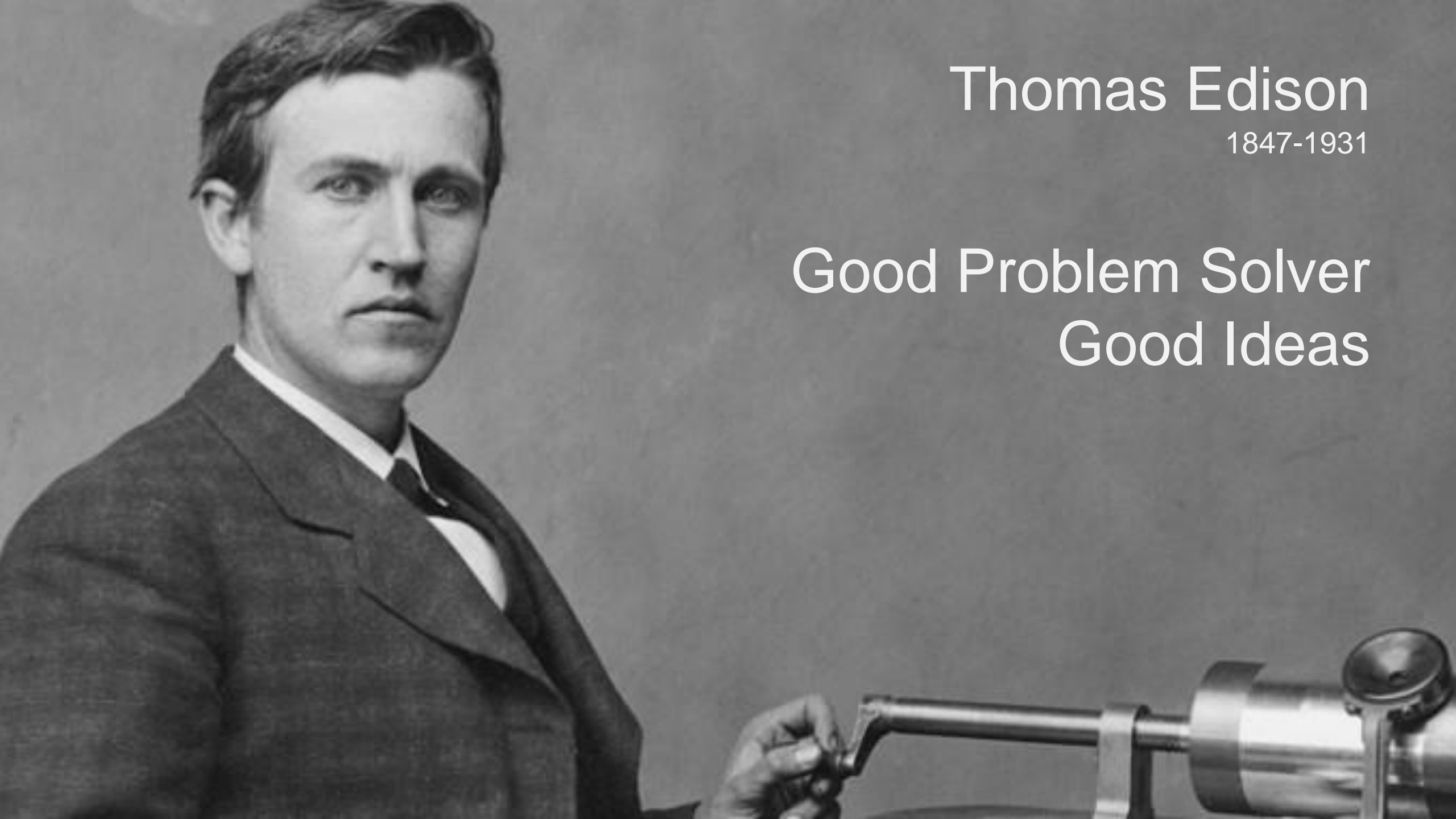


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Questions?



SBIR • STTR
America's Seed Fund



Thomas Edison

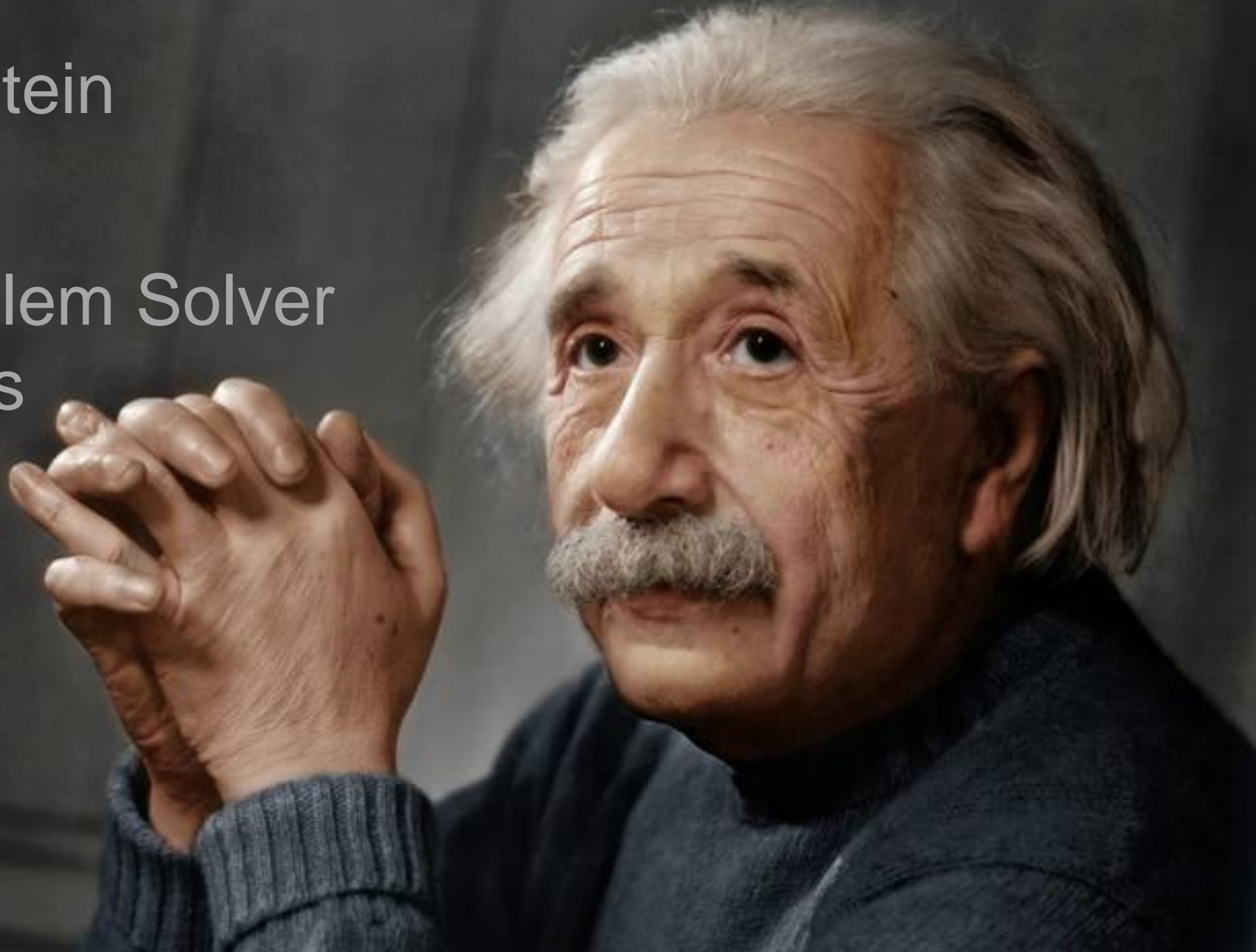
1847-1931

Good Problem Solver
Good Ideas

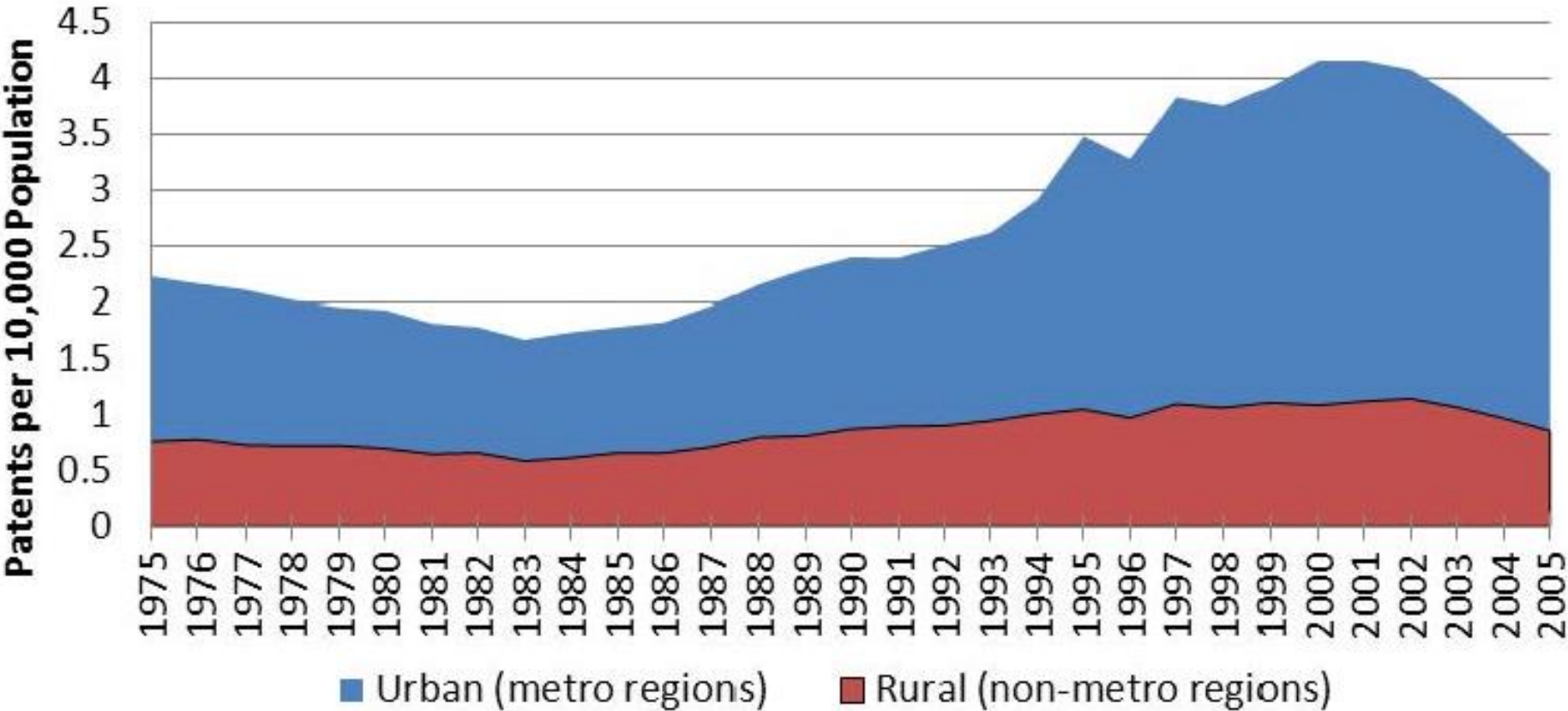
Albert Einstein

1879-1955

Good Problem Solver
Good Ideas



Urban and Rural Patents by Application Year



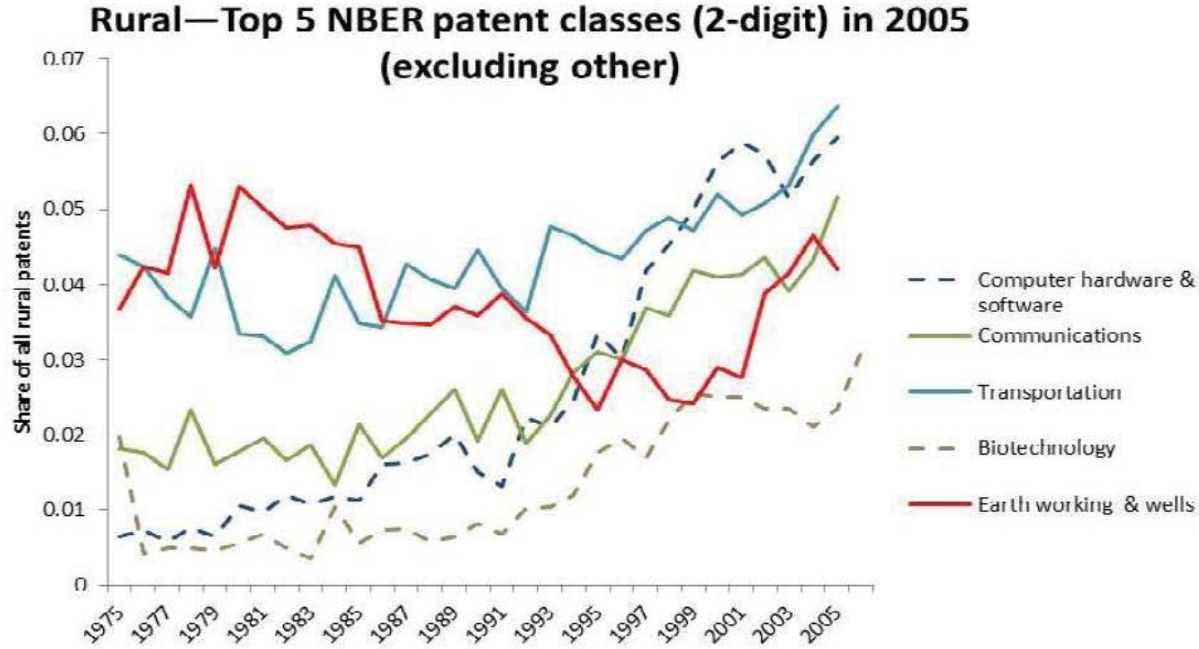
Source: ERS calculations based on data described in Lai et al. (2011)

Source: [Patenting in Rural America: Inventors, Teams and Technologies](#). Toole, Andrew A & Sarah A Low. USDA Economic Research Service Resource and Rural Economics Division. Presentation at the Agricultural & Applied Economic Association's 2013 AAEA & CAES Joint Annual Meeting, Washington, DC, August 4-6, 2013.



Rural patents are concentrated in both emerging and mature classifications

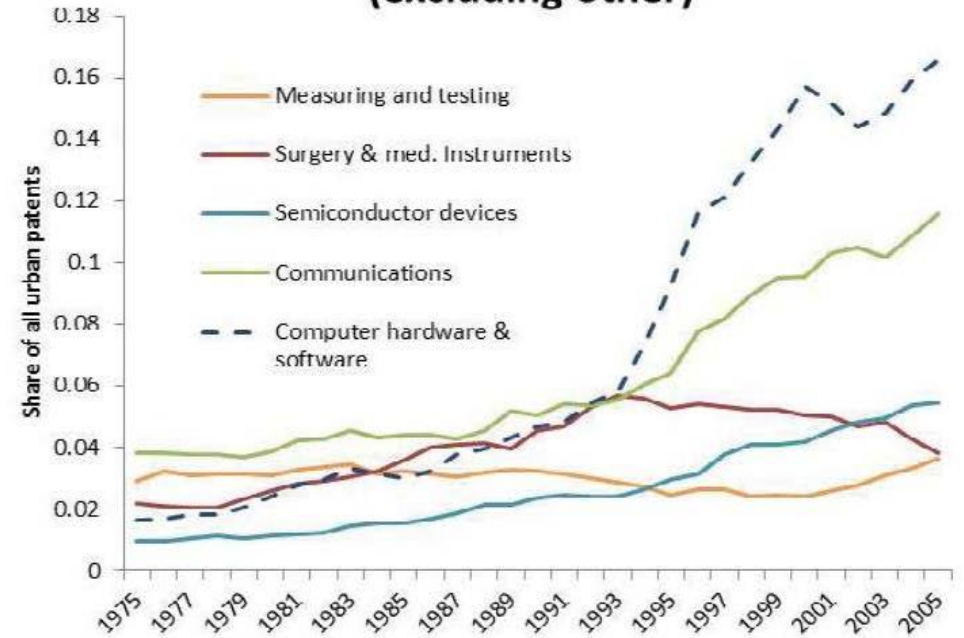
Top rural technologies include high-tech but also mature/traditional fields



Source: ERS calculations based on data described in Lai et al. (2011)

Top urban technologies are high-tech

Urban—Top 5 NBER patent classes (2-digit) in 2005 (excluding other)



Source: ERS calculations based on data described in Lai et al. (2011)

Source: [Patenting in Rural America: Inventors, Teams and Technologies](#). Toole, Andrew A & Sarah A Low. USDA Economic Research Service Resource and Rural Economics Division. Presentation at the Agricultural & Applied Economic Association's 2013 AAEA & CAES Joint Annual Meeting, Washington, DC, August 4-6, 2013.