

NAS Presentation

State Strategy/Coordination

Dr. Jerry Odom
University of South Carolina

SEPTEMBER 12, 2012

WASHINGTON, DC

EPSCoR COHORTS

FY 1980

Arkansas
Maine
Montana
South Carolina
West Virginia

FY 1985

Alabama
Kentucky
Nevada
North Dakota
Oklahoma
Puerto Rico
Vermont
Wyoming

FY 1987

Idaho
Louisiana
Mississippi
South Dakota

FY 1992

Kansas
Nebraska

FY 2000

Alaska

FY 2001

Hawaii
New Mexico

FY 2002

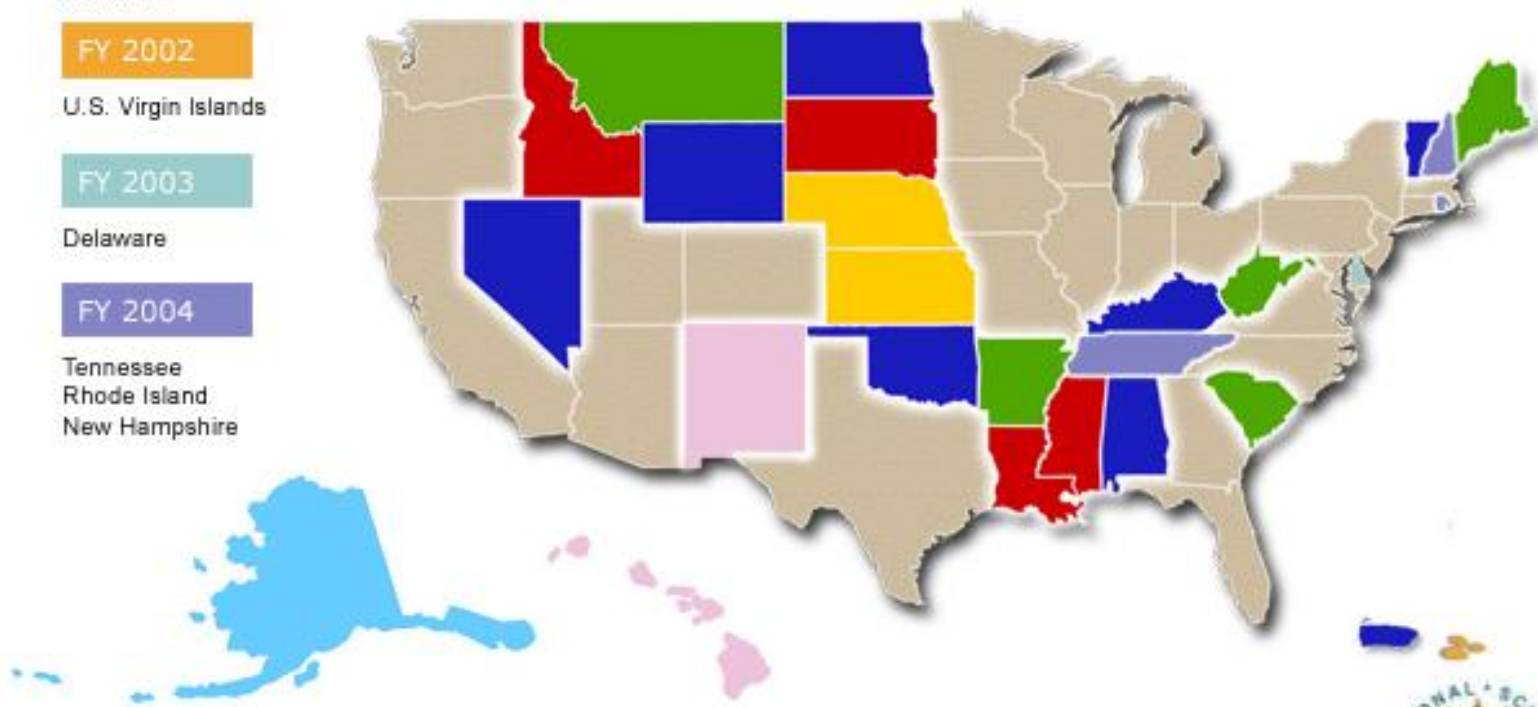
U.S. Virgin Islands

FY 2003

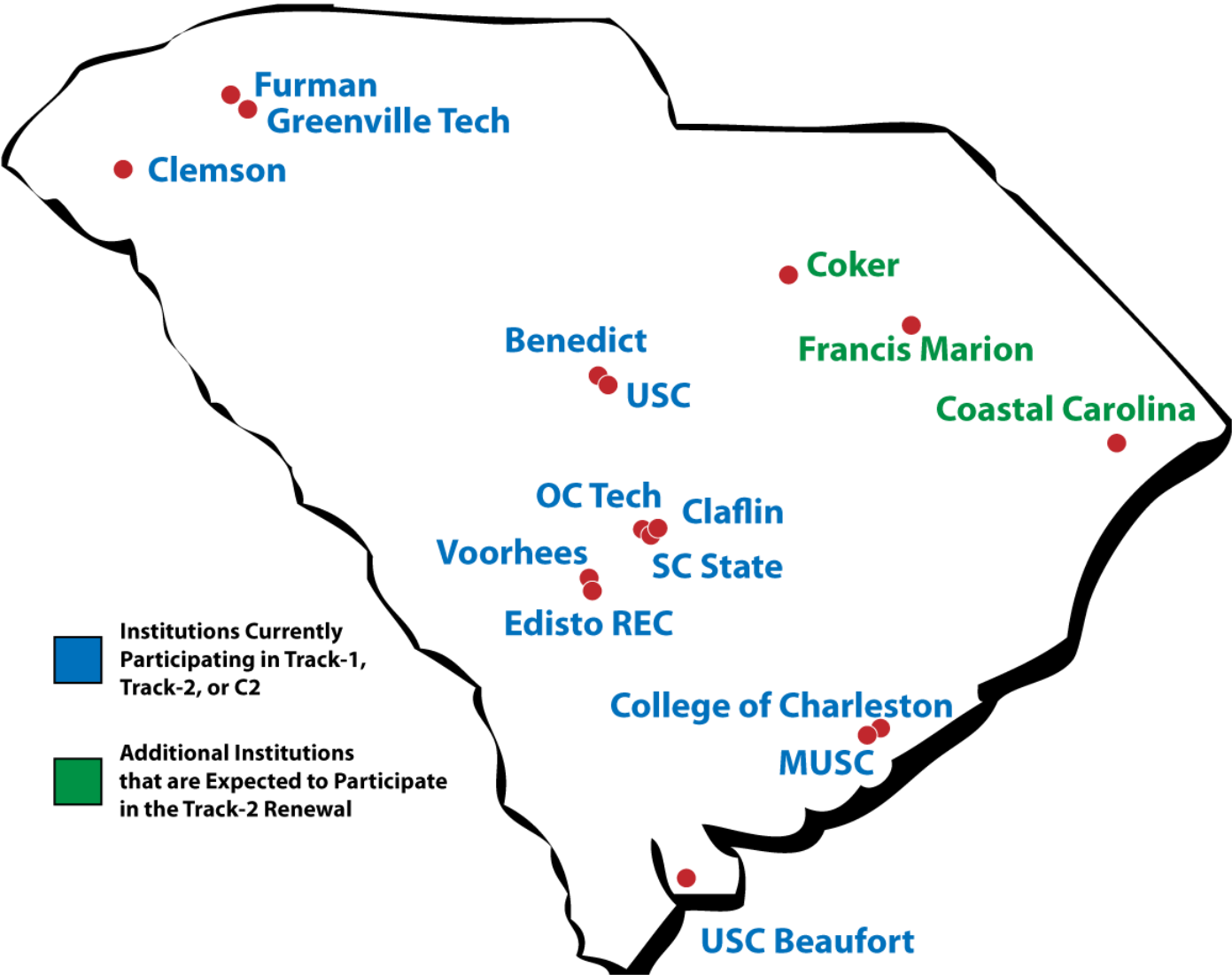
Delaware

FY 2004

Tennessee
Rhode Island
New Hampshire

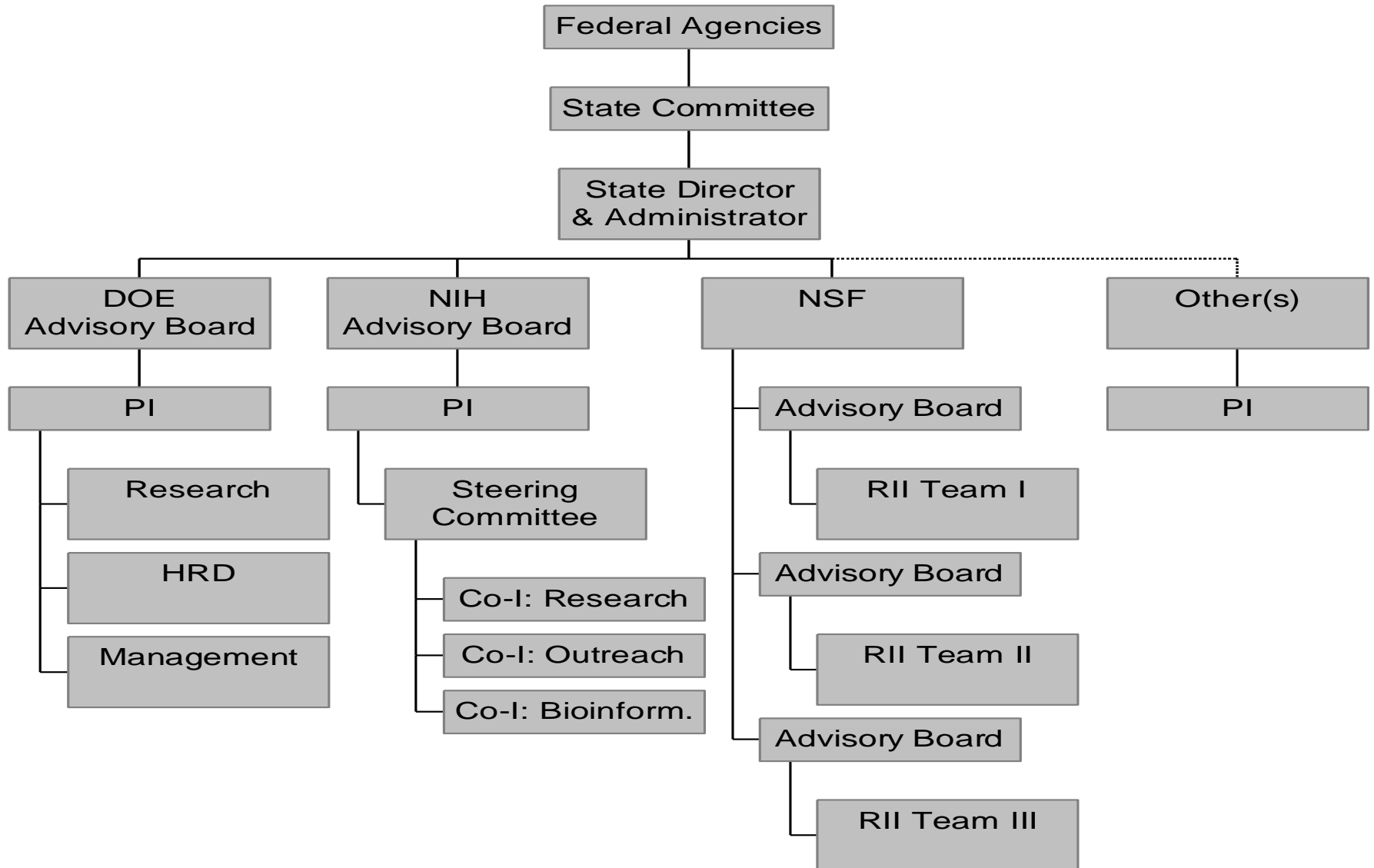


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ORGANIZATIONAL CHART



EPSCoR/IDeA State Committee



Mark Sothmann, PhD (Chair)
Vice President for Academic Affairs
and Provost
Medical University of South Carolina



Bill Mahoney
President, Director and
Chief Executive Officer
SCRA



Joyce Ann Blackwell, PhD
Vice President for Academic Affairs
South Carolina State University



Prakash Nagarkatti, PhD
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Paul Deason, PhD
Deputy Director
Savannah River Technology Center



Gerald Sonnenfeld, PhD
Vice President for Research
Clemson University



Kelly Steinhilper
Vice President,
Communications and Strategy
South Carolina Technical College System

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Strategy

- Hire Outstanding Young Faculty with Outstanding Ideas
- Provide Necessary Infrastructure
- Excellent Start-up Packages

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Goal: Develop State-wide Tissue Biofabrication Education & Research

■ **Doctoral Granting Research Universities**

- Clemson University
- Medical University of South Carolina
- University of South Carolina



■ **Historically Black Colleges & Universities**

- Claflin University
- South Carolina State University
- Voorhees College



■ **Other Predominately Undergraduate Institutions**

- Furman University
- University of South Carolina-Beaufort



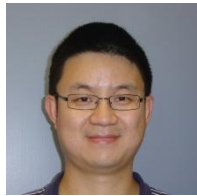
■ **Two Year Technical Colleges**

- Denmark Technical College
- Greenville Technical College



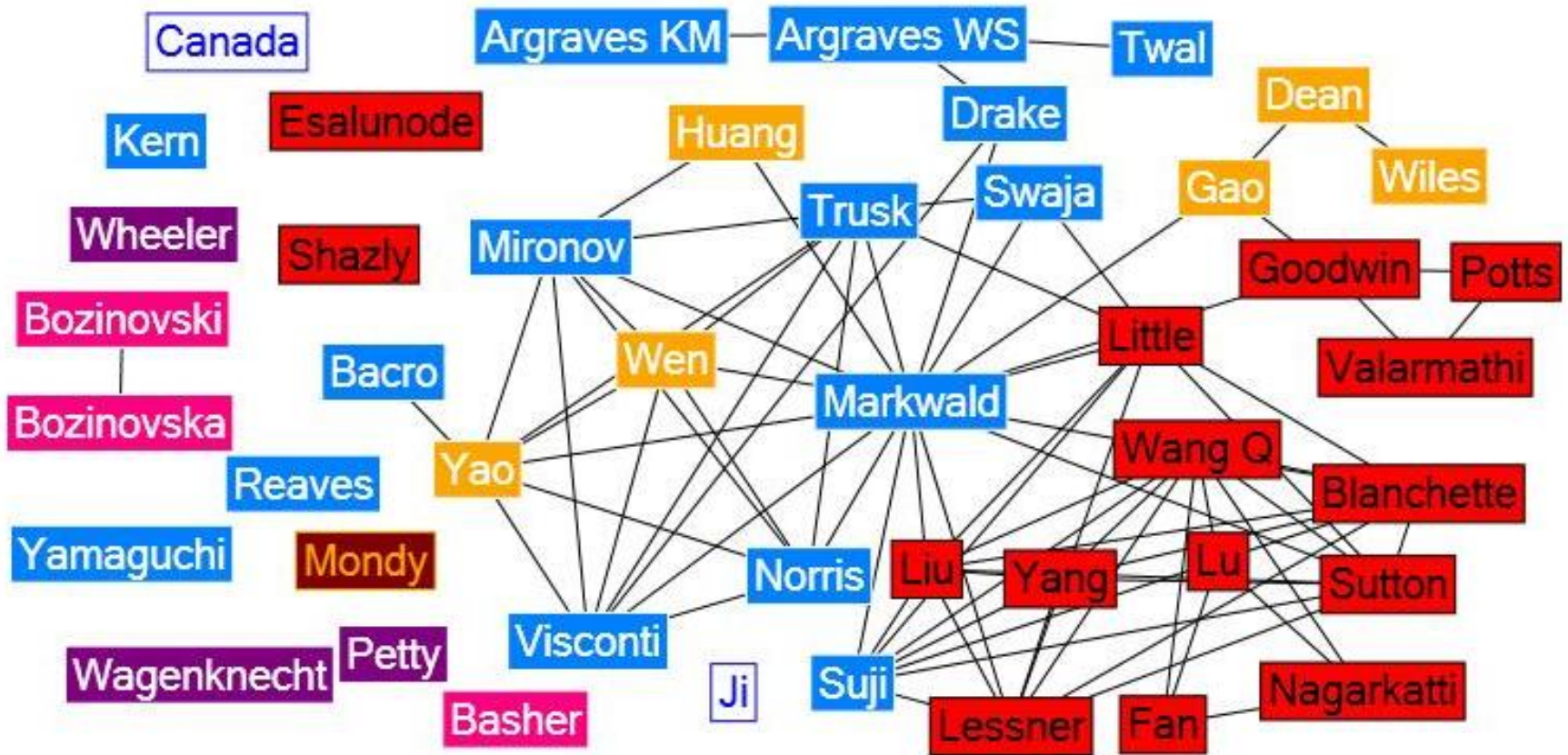
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State-wide work-force development:
19 new PhDs recruited across institutions



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2011 Authorship Network



Legend

Clemson

USC

MUSC

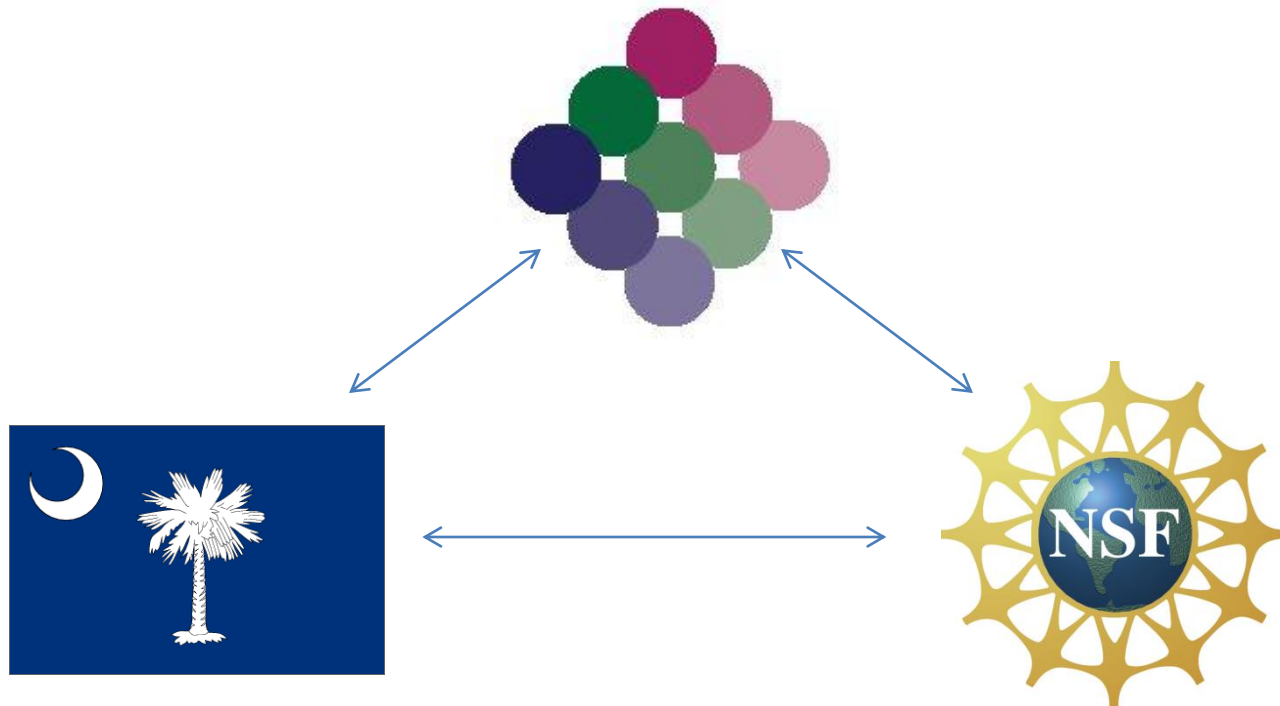
Furman

SCSU

USCB

Clavin

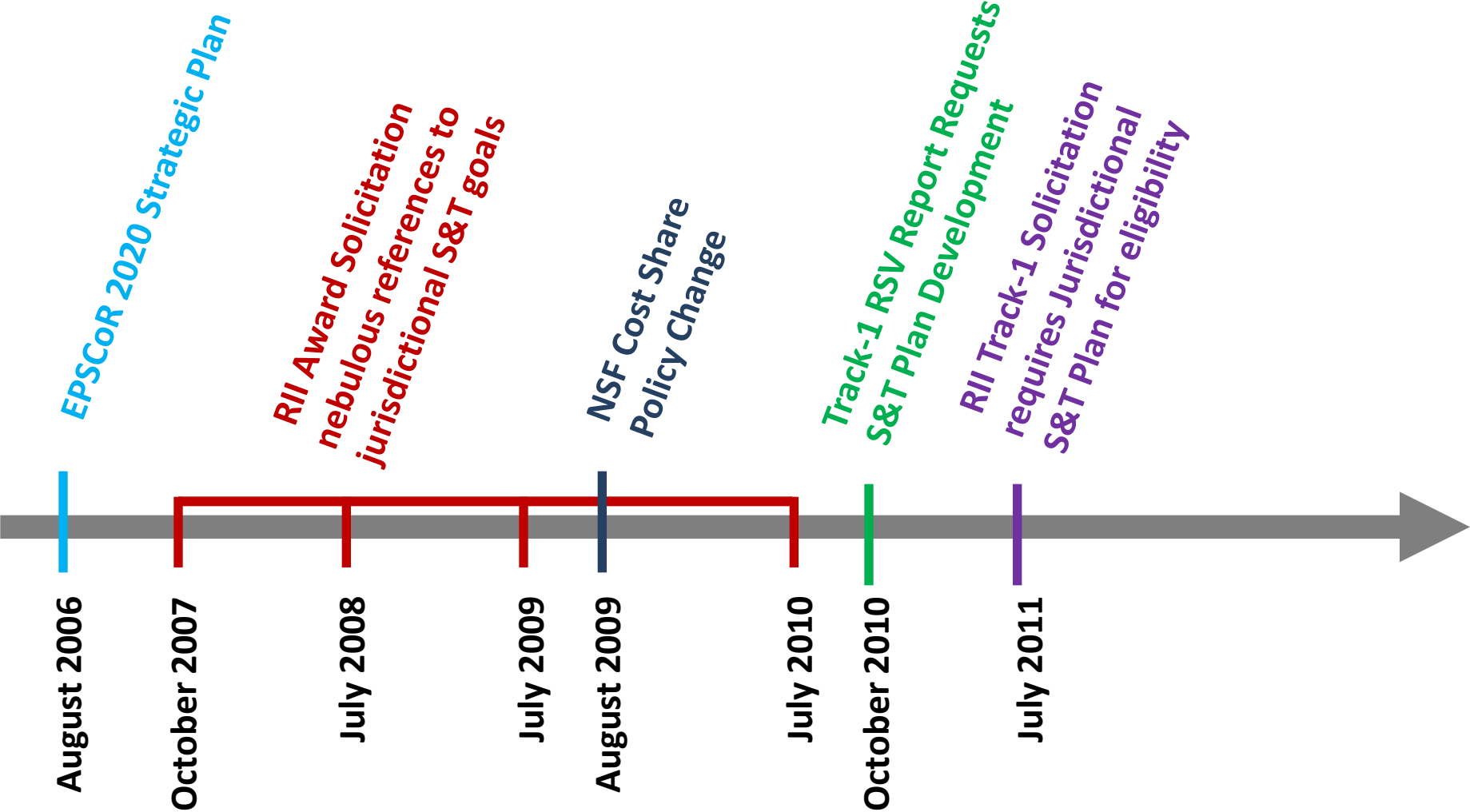
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State Appropriation

- The SC Project For Organ Biofabrication has been provided a line item of \$800,000 for each year of the project from the General Assembly of SC.
- The Year 4 matching funds were appropriated on July 1, 2012.

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Alignment with Strategic Plan

Focus Areas

- Research
- Diversity
- Workforce Development
- Cyberinfrastructure
- Outreach and Communication
- Evaluation and Assessment
- Sustainability
- Management

The South Carolina Project
for Organ Biofabrication

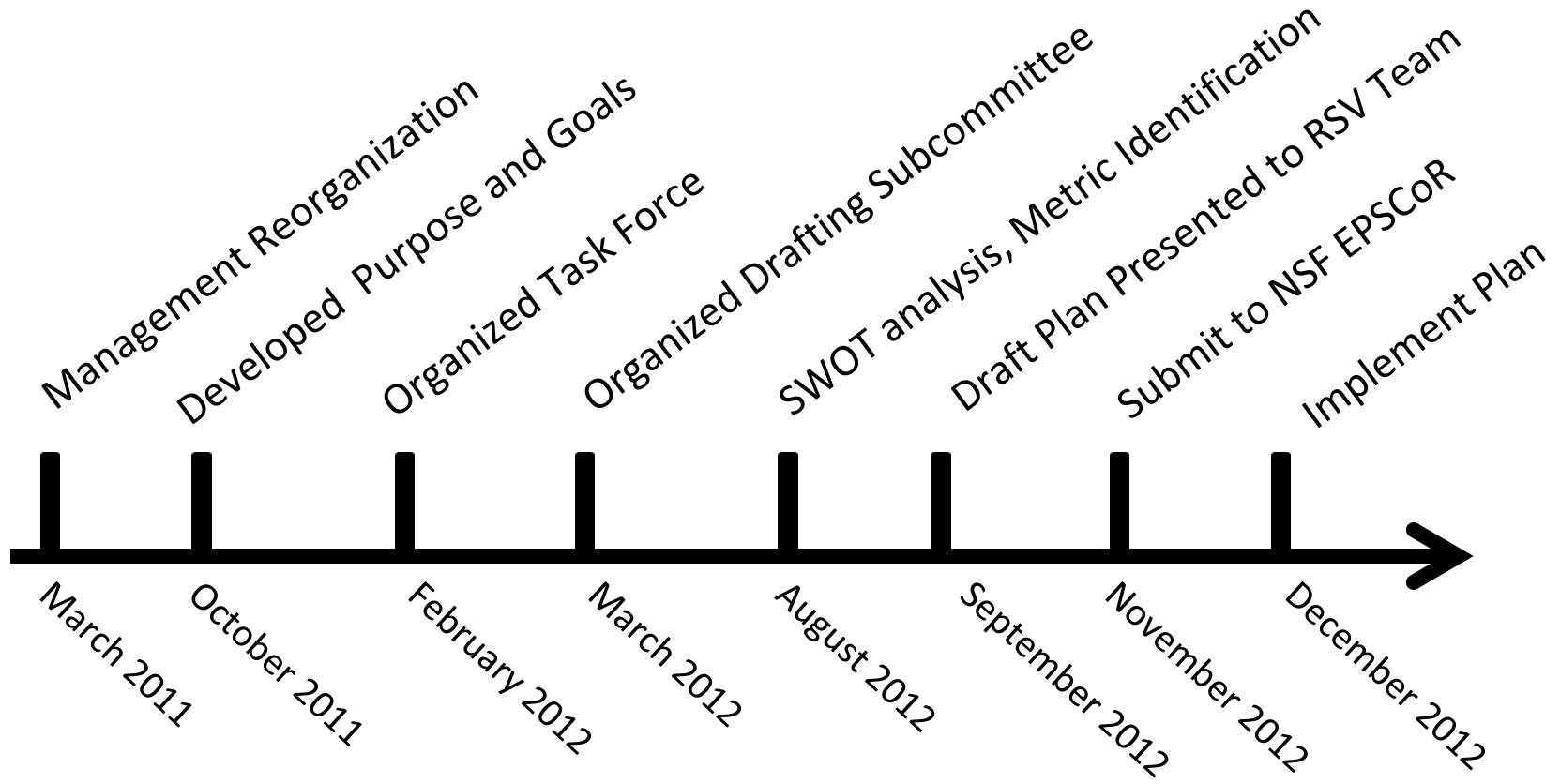
Strategic Plan 2009-2014

EPS-0903796

PI: Prakash Nagarkatti, PhD

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Timeline



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Developing a state-wide S&T plan



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- **Endowed Chairs and Centers of Excellence Act** - lottery funds to advance specific research areas
- **Research University Infrastructure Bond Act** - infrastructure funds to encourage universities to partner with private sector
- **Innovation Centers Act** - SCRA to establish three centers
- **Industry Partners Act** - modified Innovation Centers Act for connection to CoEEs
- **Venture Capital Investment Act** - funds and tax credits for seed capital for businesses

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SmartState™ Centers

- Legislators allocated \$30M a year (FY02-FY08)
- Match from non-state sources required
- Industry partnerships
- Advanced Tissue Biofabrication
 - Endowed Chair (currently recruiting 3 approved)
- Regenerative Medicine
 - Endowed Chair: Martin Morad (USC)
 - Endowed Chair: Richard Swaja (MUSC)
 - Endowed Chair: Xuejun Wen (Clemson)

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State-wide Infrastructure Support Shared Biofabrication Bldg

- Opened in November 2011
- 100,000 sq. ft.
- Houses classrooms, auditorium, imaging facilities, wet and dry labs



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Purpose

The South Carolina S&T Plan provides a framework for making science, technology, engineering, and mathematics (STEM) research a driving force for pursuit of higher education, developing new and enhancing existing high-technology businesses, and creating jobs.

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Vision

By 2025, South Carolina will have advanced the capacity and expertise in science, technology, engineering, and mathematics (STEM) to ensure current and future economic growth in a global context, to sustain a high quality of life, and to provide increased opportunities for all of its citizens.

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S&T Task Force Goals

Growing Health, Science, and Technology Workforce

Goal: South Carolina has an educated and engaged public that understands and participates in the state's health, science and technology research enterprise

Enhancing Education and Outreach

Goal: Individuals having a STEM education from South Carolina are nationally and globally competitive in the health, science, and technology workforce

Promoting Research & Development

Goal: South Carolina university and college educational programs and research missions are aligned with the needs of technology-intensive industries within the state and globally.

Stimulating Economic Development

Goal: The business environment in South Carolina is attractive to both technology-intensive companies and talented technology-competent workers.

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Major Industries

- Aerospace
- Automotive
- High Performance Textiles
- Tourism
- Chemical
- Nuclear Energy
- Agriculture
- Advanced Materials
- Information Technology
- Alternative Energy
- Transportation
- Insurance
- Biotechnology

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Enabling Infrastructure

- SmartState Endowed Chair
- Universities, Comprehensive Colleges and Technical Colleges
- Innovista, ICAR, CURI, IT-ology, SCRA, SC Launch
- Enterprise Savannah River Site, Port of Charleston
- Professional Development School Network
- Research
 - Nanotechnology
 - Medicine
 - Public Health
 - Advanced Materials
 - Transportation
 - Agriculture
 - Energy