CAISE
REVERSE SITE VISIT

An Evaluation Perspective

May 13, 2008

Inverness Research

Inverness Research

- Study the investments made in the improvement of education

- Many studies of NSF and other projects including Centers, Networks, Collaborations

- Groundtruthing -- theory of action and field realities

Our Perspective and Assumptions about CAISE

- CAISE is intended to be a Center that enhances the ISE field and increases the efficacy of the NSF ISE investment
- CAISE is an innovative entity without precedent to guide its design
- CAISE will evolve its design over time
- CAISE is a cooperative agreement and a collaborative effort

Our Perspective and Assumptions about the evaluation of CAISE

- Allegiance of the evaluator is to the best use of the investment, to the public good, and not to the project or NSF
- Goal of the evaluation is to help optimize the return on investment
  - Formative feedback
  - Critical friend role
  - Documenting impacts
  - Distilling lessons learned
- First year work: focusing on initiation of work and formulation of the Center

Evaluation Activities to Date

- Participated in key Center formation meetings
- Ongoing discussions/interviews with key Center leaders
- Review of documents; tracking work of the Center
- Participated in Web inquiry group
- Brief review of the website

Overview

- The CAISE "Design Space"
- Opportunities within the Design Space:
    - Strengthening the ISE Field
    - Serving and Strengthening the NSF ISE Program
    - Communicating to NSF and External Audiences
    - Growing a Center
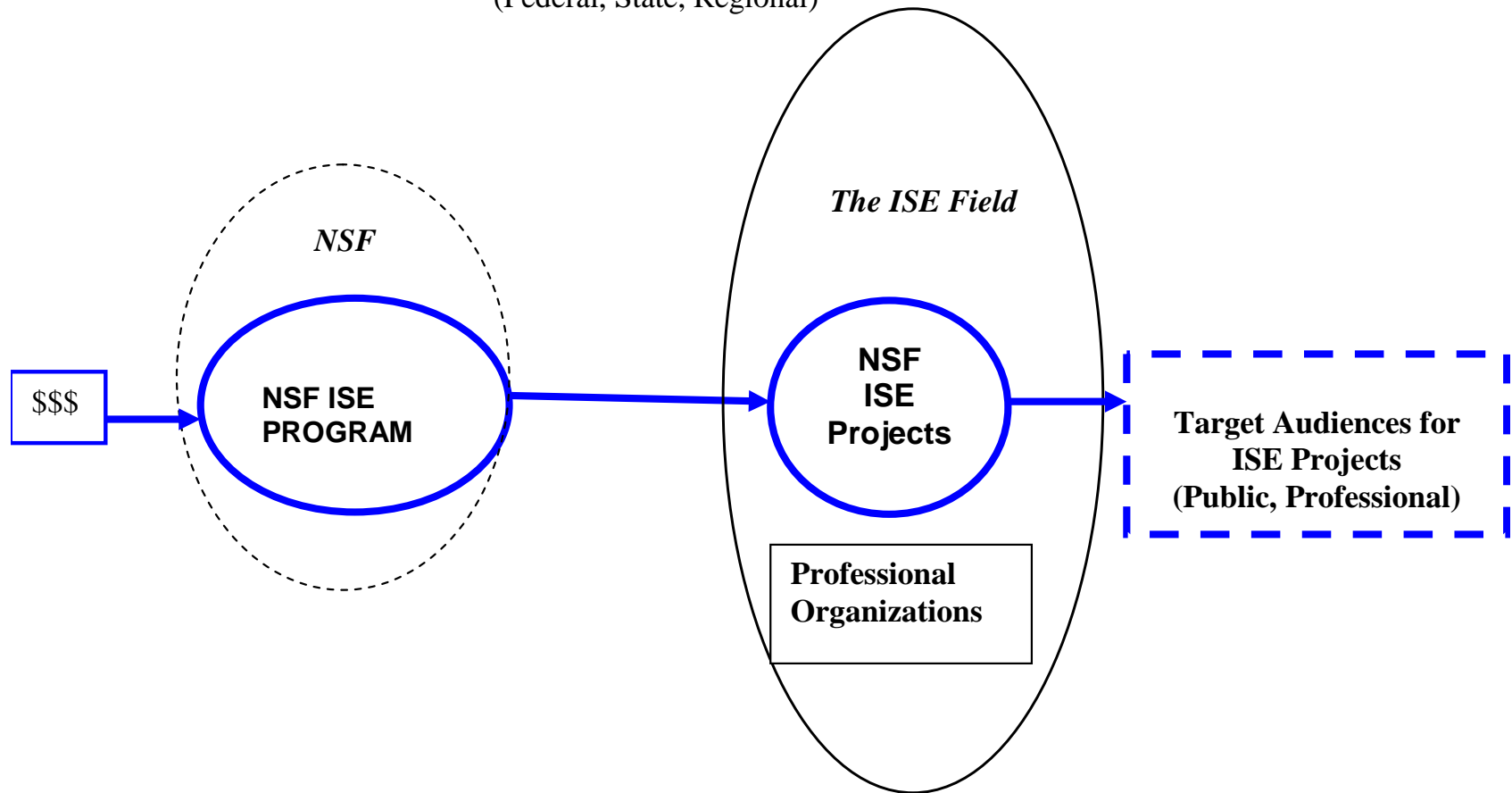- Summary of Progress and Next Steps

The CAISE Design Space

The Basic Stream of Investment
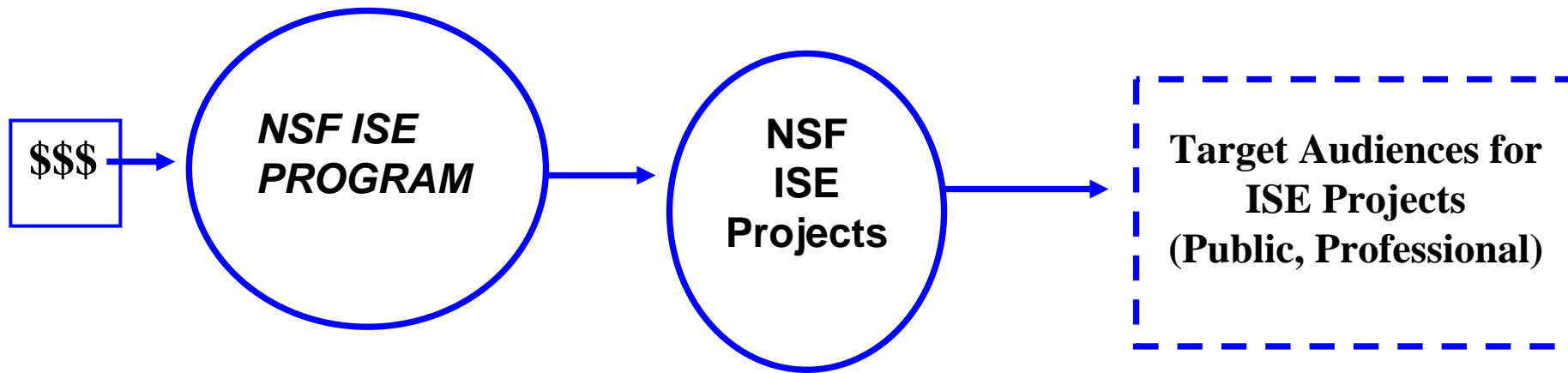
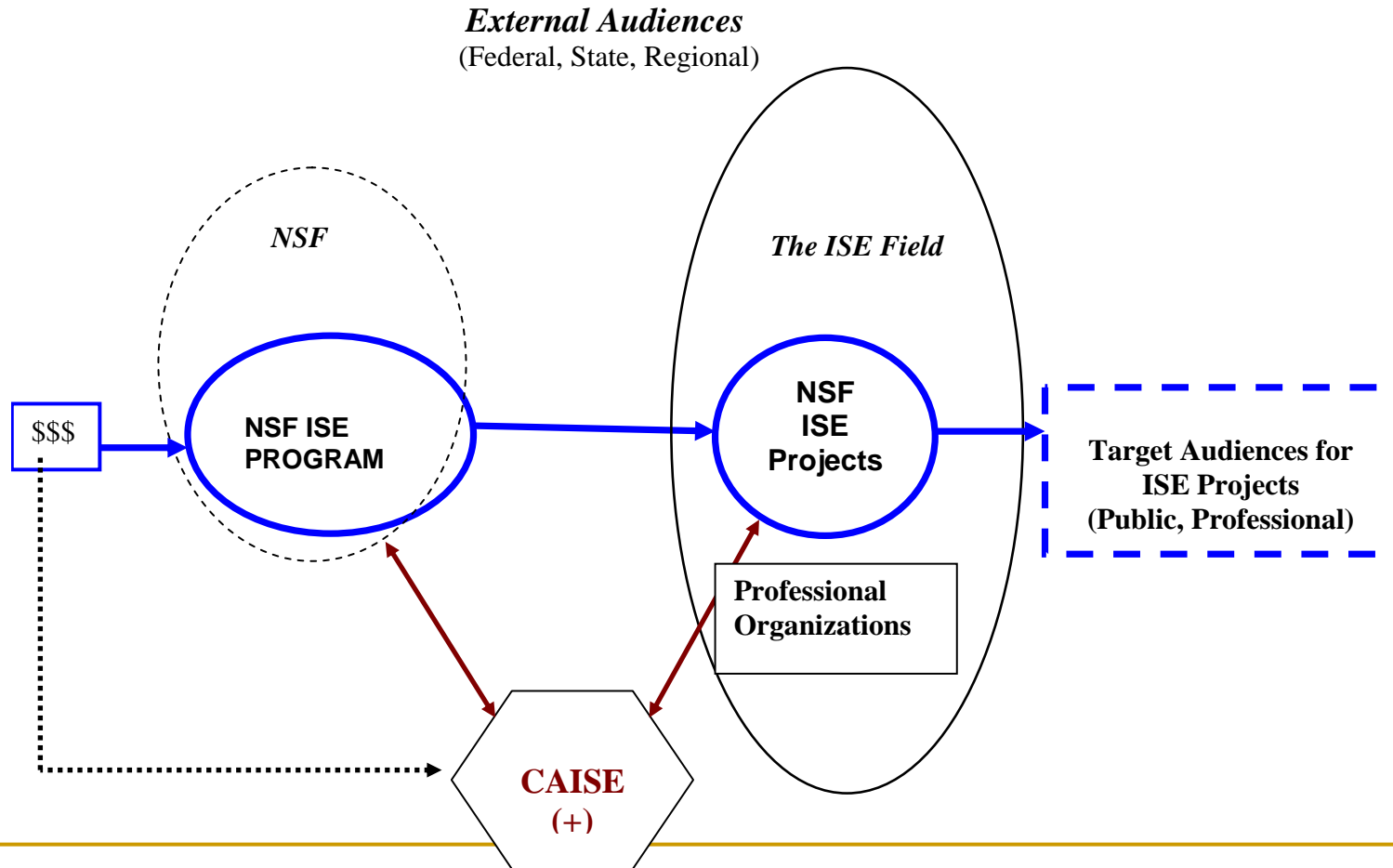# The Stream of Investment in Broader Contexts

External Audiences
(Federal, State, Regional)

The ISE Field

NSF

$$$

NSF ISE PROGRAM

NSF ISE Projects

Professional Organizations

Target Audiences for ISE Projects
(Public, Professional)

The Investment in CAISE

External Audiences
(Federal, State, Regional)

NSF

The ISE Field

$$$

NSF ISE PROGRAM

NSF ISE Projects

Target Audiences for ISE Projects
(Public, Professional)

Professional Organizations

CAISE (+)

Strengthening the ISE program and the ISE field

External Audience
(Federal, State, Regional)
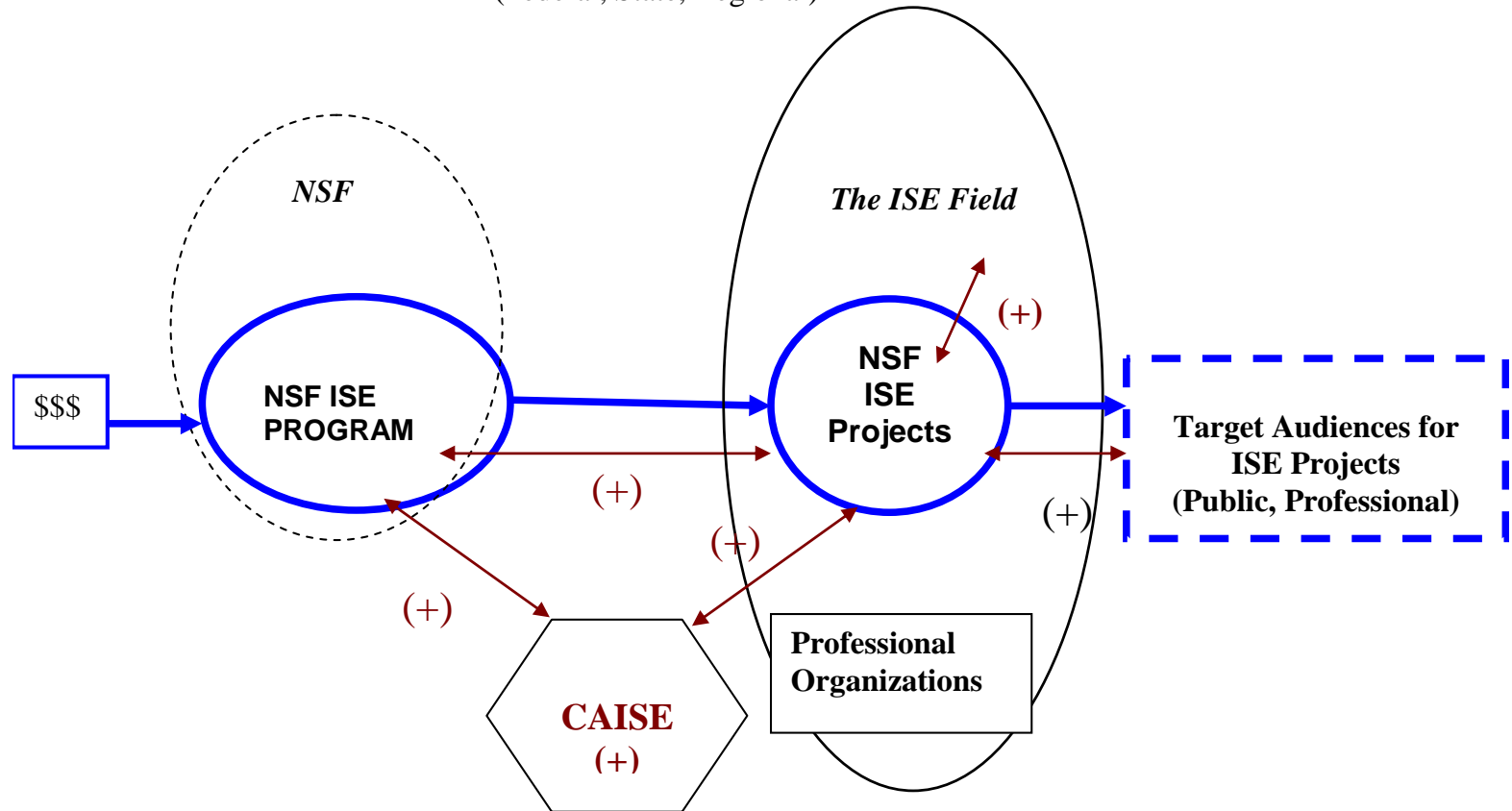
NSF

The ISE Field

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NSF ISE PROGRAM

NSF ISE Projects

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Target Audiences for ISE Projects
(Public, Professional)

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CAISE
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Professional Organizations

Communicating the value of ISE investments

External Audience
(Federal, State, Regional)

NSF

The ISE Field

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NSF ISE PROGRAM

NSF ISE Projects

Target Audiences for ISE Projects
(Public, Professional)

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Professional Organizations

CAISE
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IRI

CAISE DESIGN SPACE

External Audience
(Federal, State, Regional)

NSF

The ISE Field
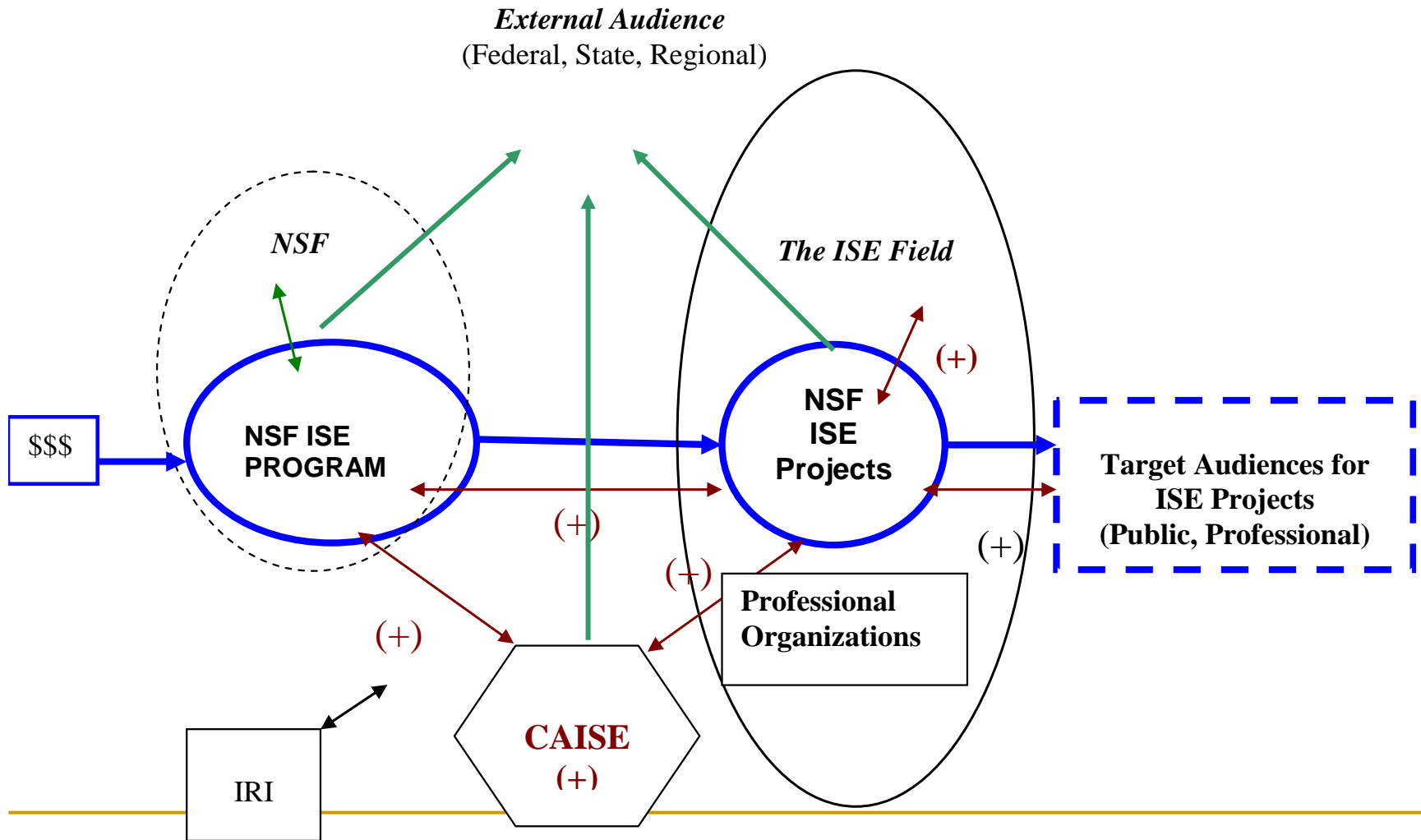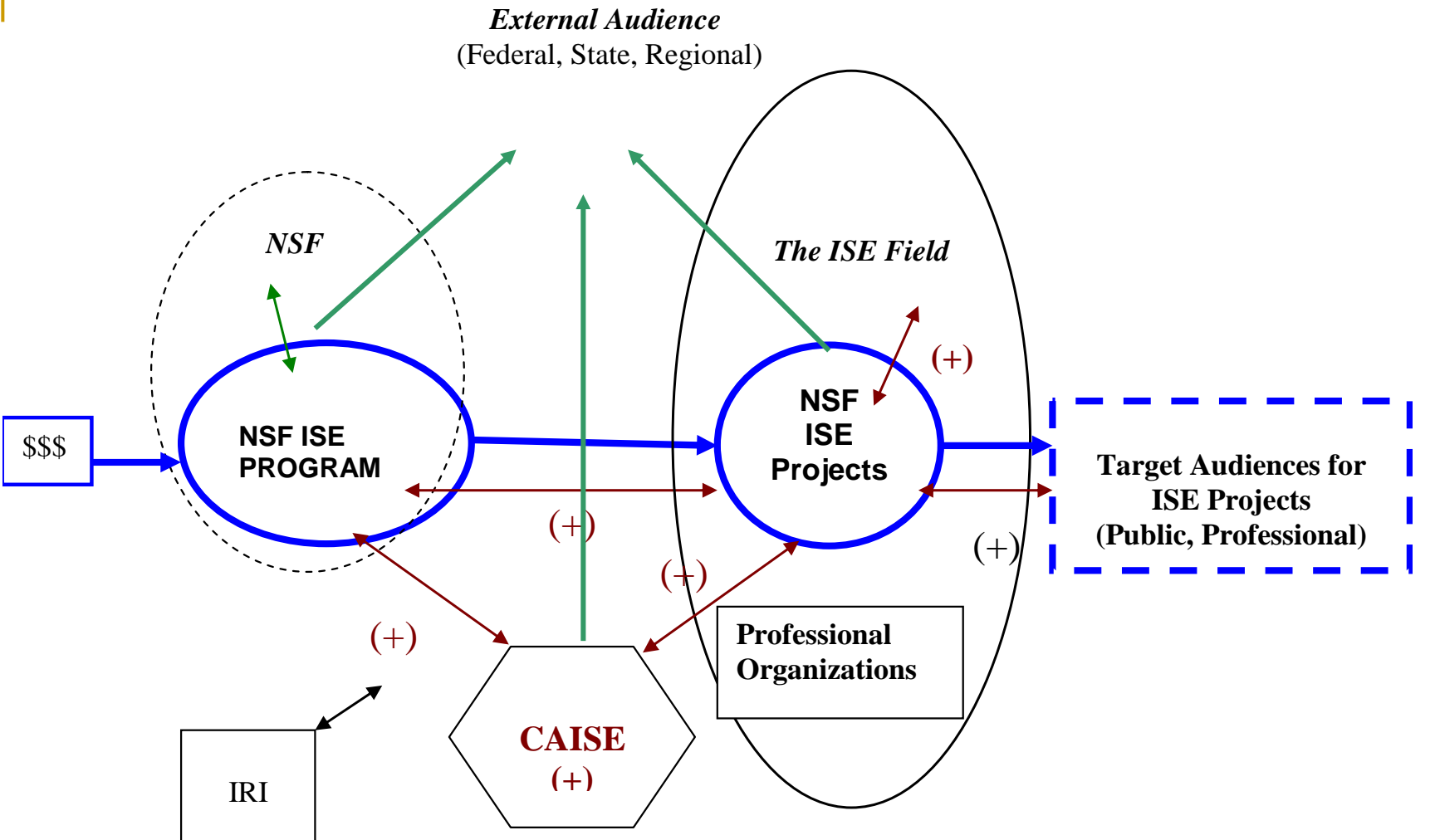
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NSF ISE PROGRAM

NSF ISE Projects

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Target Audiences for ISE Projects
(Public, Professional)

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Professional Organizations

CAISE
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Note – Blue lines represent stream of investment; red arrows represent interactions and contributions; Green arrows represent communication and advocacy
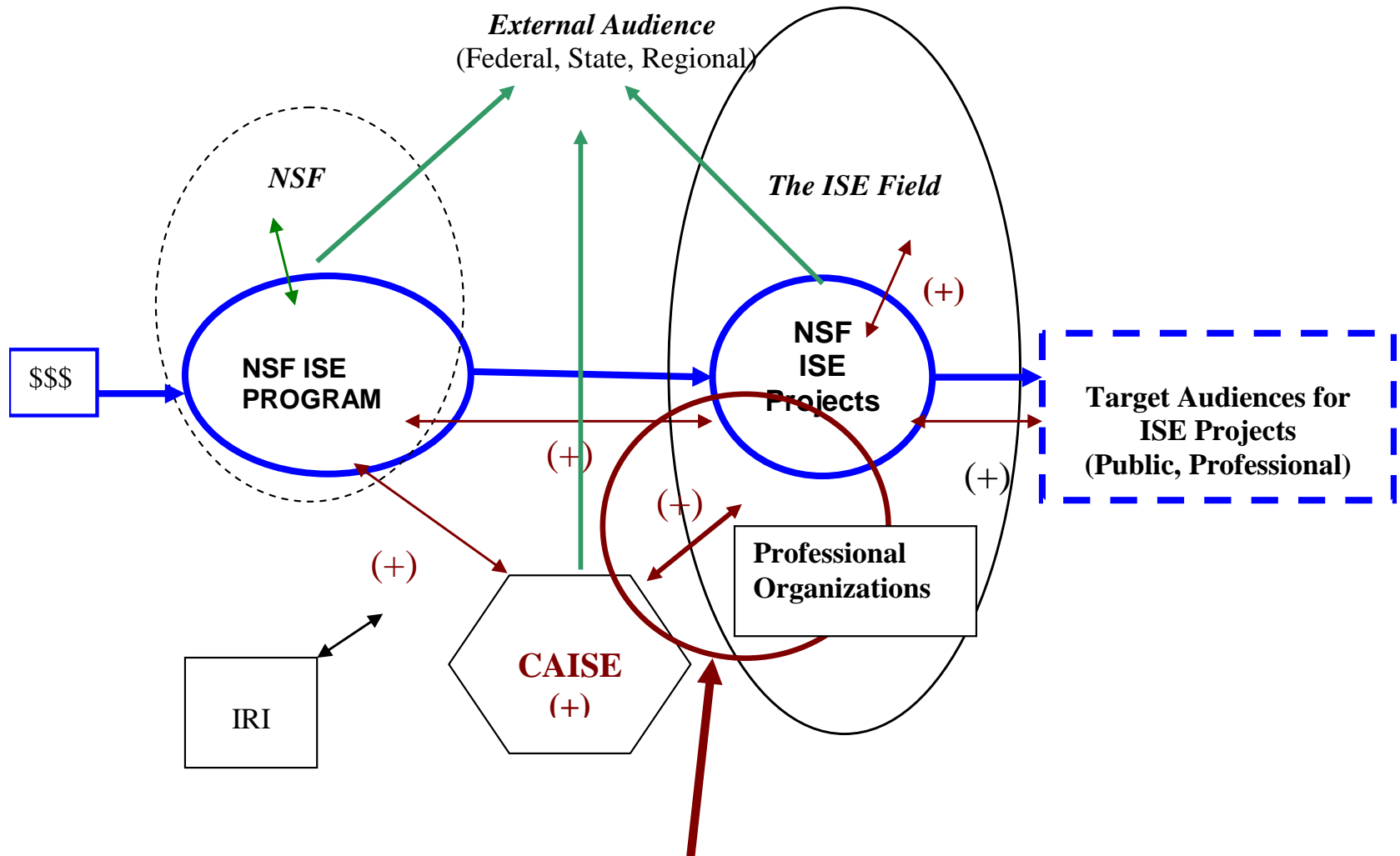
Strengthening the ISE Field

The Concept of the "Field" (Oxford English Dictionary)

- Open countryside
- Battlefield; Playing Field
  - "Take the field"
- All the competitors who play/fight on the field …all engaged in the same game
    - "the rest of the field"
    - "to play the field"
- An area or sphere of action, operation or investigation
  - A department, area of study, shared inquiry

Characteristics of a Strong Field

- The field is recognized as a field with its own identity
- The domain of the field is valued by society at large
- The people and work of the field are visible
- The field attracts and retains good people
- The field produces high quality work and is responsible for quality control
- The field is intellectually rich, diverse, interactive
- The field is producing and sharing new knowledge, innovations
- The field is well connected -- internally and externally
- Multiple sources of support and funding
- Able to identify and address critical issues

STRENGTHENING THE ISE FIELD

External Audience
(Federal, State, Regional)

NSF

The ISE Field

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NSF ISE
PROGRAM

NSF
ISE
Projects

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Target Audiences for
ISE Projects
(Public, Professional)

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Professional
Organizations

CAISE
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IRI

Note – Blue lines represent stream of investment; red arrows represent interactions and contributions; Green arrows represent communication and advocacy

Things to do to strengthen a Field

- Create greater visibility and sense of shared identity
- Attract and retain high quality people to work in the field
- Garner more resources and create the capacity for gaining additional support
- Create mechanisms for developing new leadership
- Generate and share new research, knowledge
- Identify and address critical issues in the field
- Create greater community, connections, relationships – both internally and externally
- Support innovation, creativity
- Enhance professional activity, responsibility

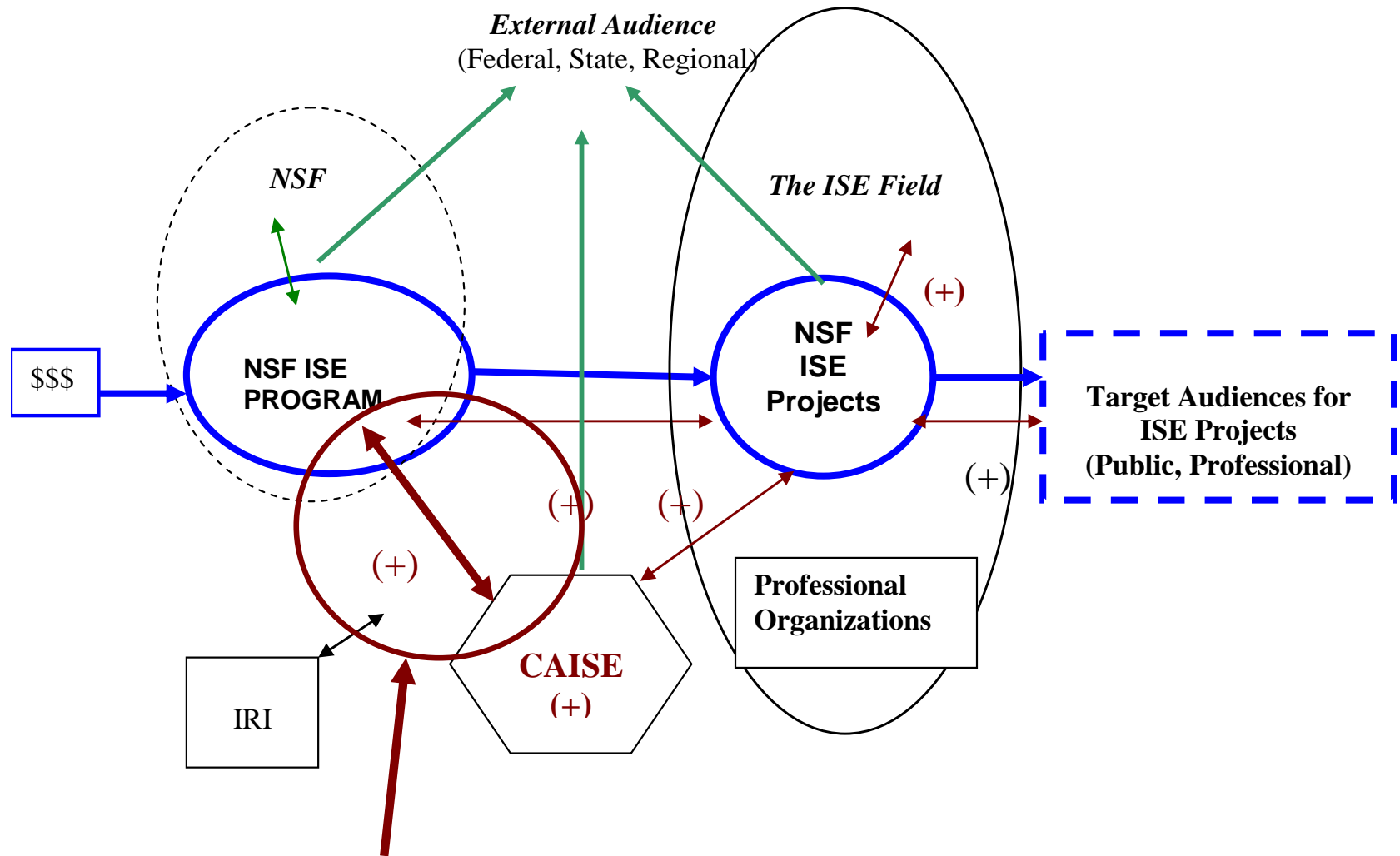# Strengthening the ISE Field: Current CAISE Activities

- Inquiry groups
- PI meeting
- Workshops (VSA)
- Steering Committee and Forum
- Fellows Program
- Landscape study
- Newsletter articles
- Insci.org website

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Serving and Strengthening the NSF ISE program

SERVING AND STRENGTHENING NSF ISE PROGRAM

Note – Blue lines represent stream of investment; red arrows represent interactions and contributions; Green arrows represent communication and advocacy

Things to do to strengthen a Grantmaking Program

- Help grantmakers better understand the state of the field and the landscape they are trying to influence
- Help shape the grantmaking theory of action
- Provide feedback on current and past grants -- portfolio, initiatives, individual grants
- Help to identify promising opportunities
- Enhance communication between funder and the field
- Help funder improve evaluation criteria, practices
- Help funder make a case for their grantmaking to key external audiences

Serving and Strengthening the NSF ISE Program: Current CAISE Activities
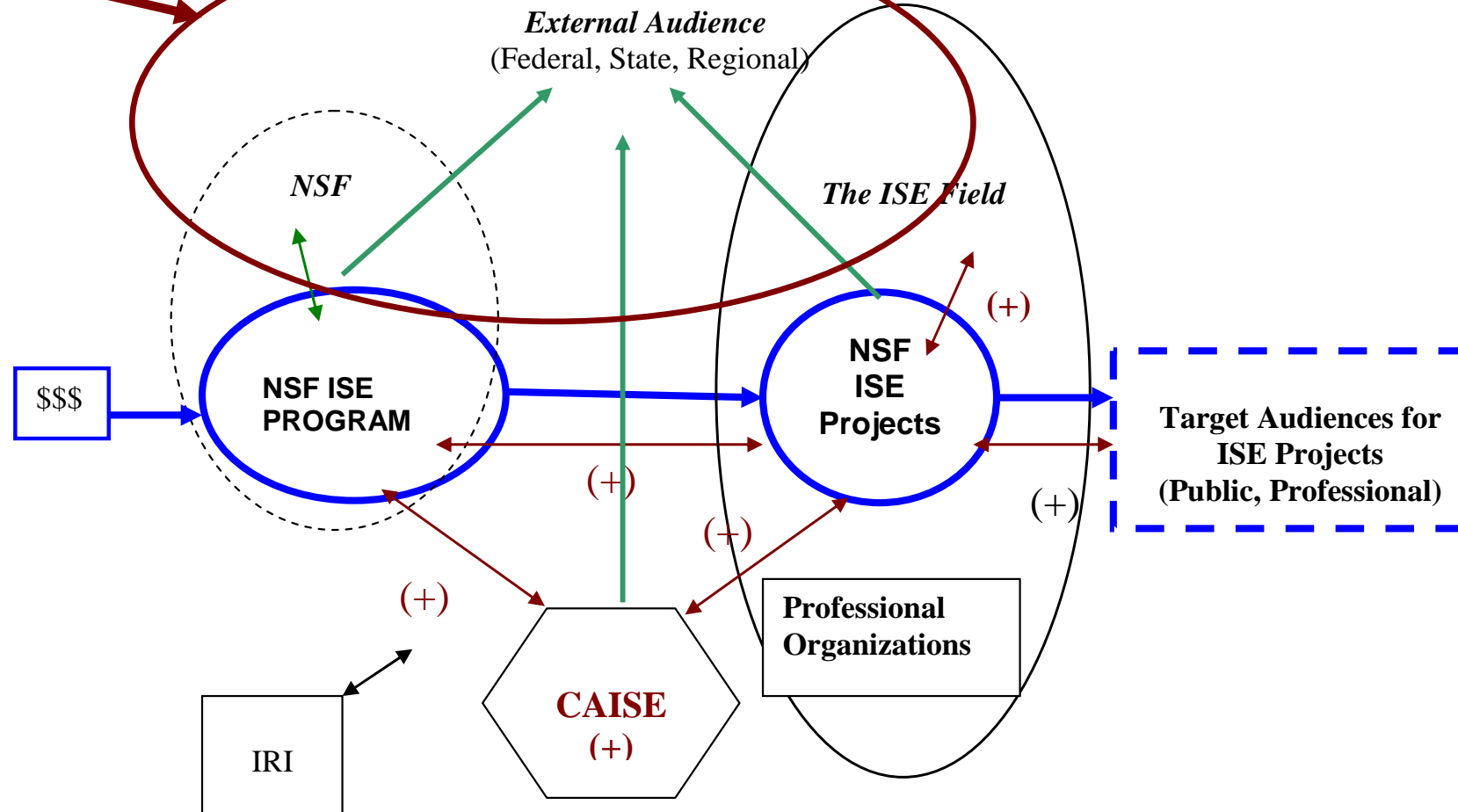
- Regular meetings with NSF ISE staff
- Feedback to NSF ISE on the state of the field
  - Landscape study
  - PI Survey
- Portfolio Inquiry Group → Analysis to inform grantmaking
- Inquiry groups inform ISE re particular domains
- Helping NSF ISE to communicate to the field
  - PI meeting
  - Dissemination: e.g. the evaluation framework

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Communicating the value of ISE investments to NSF and external audiences

COMMUNICATING TO NSF AND EXTERNAL AUDIENCES

External Audience
(Federal, State, Regional)

NSF

The ISE Field

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NSF ISE PROGRAM

NSF ISE Projects

Target Audiences for ISE Projects (Public, Professional)

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Professional Organizations

CAISE
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Note – Blue lines represent stream of investment; red arrows represent interactions and contributions; Green arrows represent communication and advocacy

Things to do to make the case for a funding program

- Portray the portfolio, spectrum of grants made
- Portray a statistical picture of people, institutions served
- Communicate the nature and needs of the field that is being funded
- Demonstrate multiple ways in which there is a return on the investment made
- Demonstrate progress, learning in the investment strategies and processes
- Provide evidence of key contributions to targeted audiences
- Provide evidence of leverage, cost-effectiveness
- Illuminate the cumulative contributions (capacity building) of the investments
- Provide illuminative anecdotes, stories that portray benefits of the investments

Communicating the value of ISE investments to NSF and External Audiences: Current CAISE Activities

- Newsletter
- Insci.org website
- Inquiry Groups
- Portfolio analysis

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Growing a Sustainable Center

GROWING A CENTER
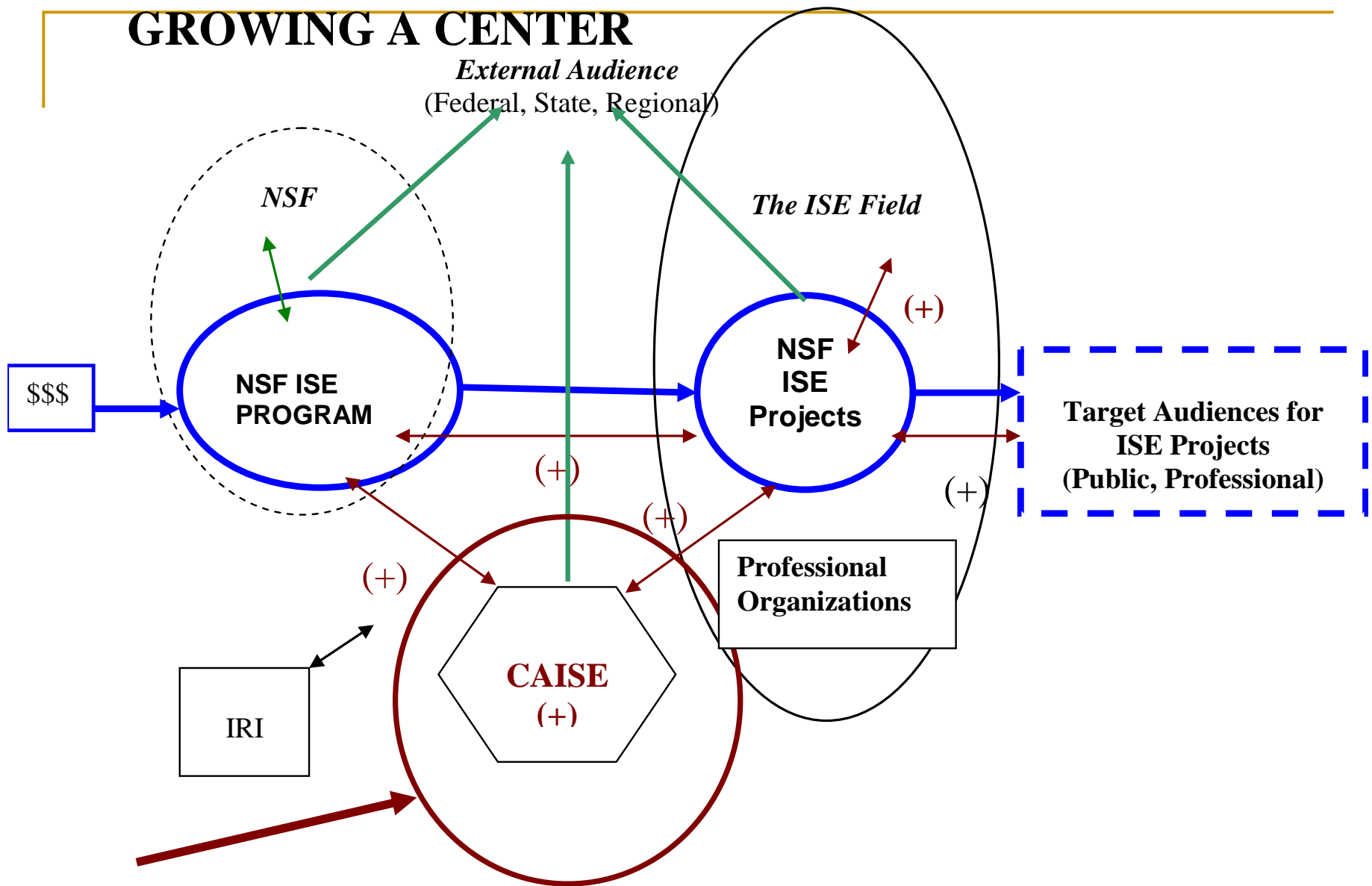
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Things to do to grow a sustainable Center

- Create a shared vision of mission and purpose
- Develop strong leadership
- Develop strong staff and others to do the work
- Establish clear governance and decisionmaking
- Assure strong financial support(s)
- Develop symbiotic interactions with the field
- Develop a portfolio of work that supports the mission of the Center and increases Center capacity

Growing a Center: Current CAISE Activities

- First year has been focused on foundation building, establishing the mechanisms and structures to work together
- Working toward a shared vision
- Hiring of Director
- Hiring of Project Manager
- Raising visibility and awareness of Center
- Co-PI calls and meetings
- Steering committee formation

Things to do to grow a sustainable Center

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CAISE Capacities and Initiating the Work of CAISE
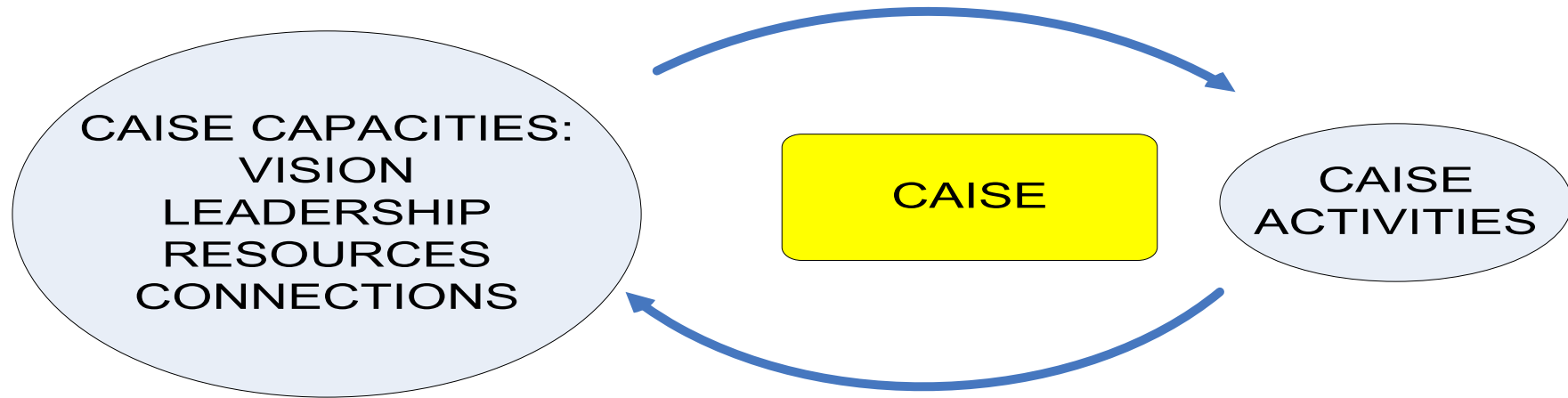
Emerging Design Challenges

Continued Refinement of the Conceptualization of the Center

- Independent Organization vs Project vs Contract?
- Organizing Metaphor?
    - AAAS, Community Organizing, Regional government
- Nature and extent of connections with the Field?
    - ISE projects
    - Individuals
    - Institutions
    - Agencies, organizations, disciplines, sectors
- Nature and extent of connections with NSF ISE program ?

Governance and Decisionmaking

- Role of the PI

- Roles of the CO-PIs

- Roles of the Director and Project Manager

- Roles of the Steering Committee

- Roles of the NSF ISE program officers

- Decisionmaking groups, structures and processes

Prioritization of Center Functions

- Strengthening the Field
  - (which functions?)
- Serving and strengthening NSF ISE grantmaking
  - (which functions?)
- Communicating the value of the ISE investment
- Develop a sustainable independent Center

Congruence and Coherence of CAISE Activities

- Activities congruent with priorities?
- Cost and contribution of different CAISE activities?
- Design of individual activities?
- The overall coherence of a CAISE portfolio of activities?

Center strategic planning and allocation of resources

- How are resources to be allocated across functions and priorities?
- What is the process of decisionmaking?

Proposed CAISE goals for Year Two

- Make demonstrable progress in addressing key design challenges
  - Overall conceptualization
  - Governance and decisionmaking
  - Prioritization of Center functions
  - Congruence and coherence of CAISE activities
  - Center strategic planning and allocation of resources

END