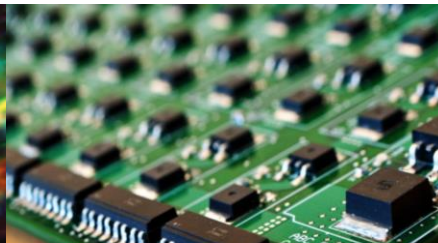


Catalyzing new research initiatives



Advanced
Cyberinfrastructure



Computing &
Communication Foundations



Computer & Network
Systems



Information &
Intelligent Systems

Jim Kurose

Assistant Director

Computer & Information Science & Engineering

emulated by Ken Calvert

Division Director for Computer and Network Systems

Creating new research “initiatives”

- NSF: community-driven, community-responsive, “bottom up”
- New “initiatives” (solicitation, programmatic, cross-government) built upon, driven by, community and agency interests
- Common approach:
 - Initial community engagement: level of interest, capacity?
 - Workshops, engaging community, to determine challenges, opportunities
 - NSF-internal discussions, informed by workshops
 - Solicitation



TRIPODS

Transdisciplinary Research in Principles of Data Science Phase I (TRIPODS)

TRIPODS Phase I

PROGRAM SOLICITATION

NSF 16-615

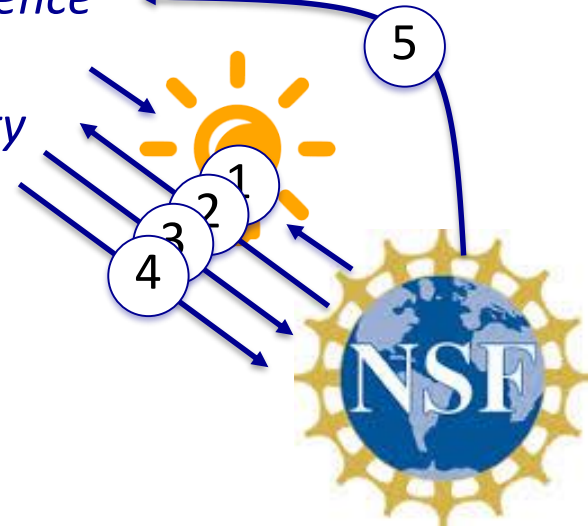


National Science Foundation

Directorate for Computer & Information Science & Engineering
Division of Computing and Communication Foundations

Directorate for Mathematical & Physical Sciences
Division of Mathematical Sciences

*Computer Science
Research
Community*



Smart and Connected Communities

Smart and Connected Communities (S&CC)

PROGRAM SOLICITATION

NSF 16-610



National Science Foundation

Directorate for Computer & Information Science & Engineering
Division of Computer and Network Systems
Division of Information & Intelligent Systems
Division of Computing and Communication Found

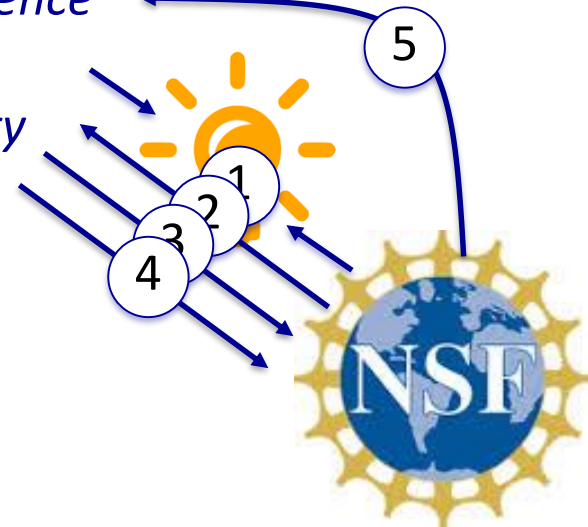
Directorate for Education & Human Resources
Research on Learning in Formal and Informal Set

Directorate for Engineering
Division of Chemical, Bioengineering, Environmental and Transport Systems
Division of Civil, Mechanical and Manufacturing Innovation
Division of Electrical, Communications and Cyber Systems

Directorate for Geosciences
Division of Atmospheric and Geospace Sciences
Division of Earth Sciences
Division of Ocean Sciences
Division of Polar Programs

Directorate for Social, Behavioral & Economic Sciences
Division of Behavioral and Cognitive Sciences
Division of Social and Economic Sciences

*Computer Science
Research
Community*



NSF Cloud Midscale Infrastructure



National Science Foundation
WHERE DISCOVERIES BEGIN

Division of Computer and Network Systems

**CISE RESEARCH INFRASTRUCTURE: MID-SCALE INFRASTRUCTURE -
NSFCLOUD (CRI: NSFCLOUD)**

CONTACTS

Name

Joseph B. Lyles
Geoffrey Brown

Email

jlyles@nsf.gov
gebrown@nsf.gov

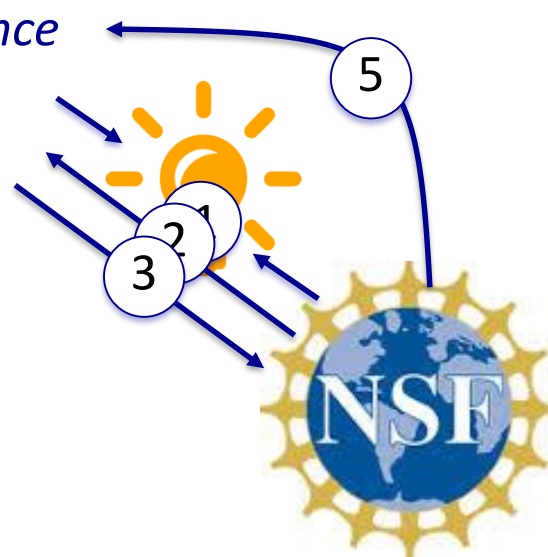
Phone

(703) 292-8950
(703) 292-8950

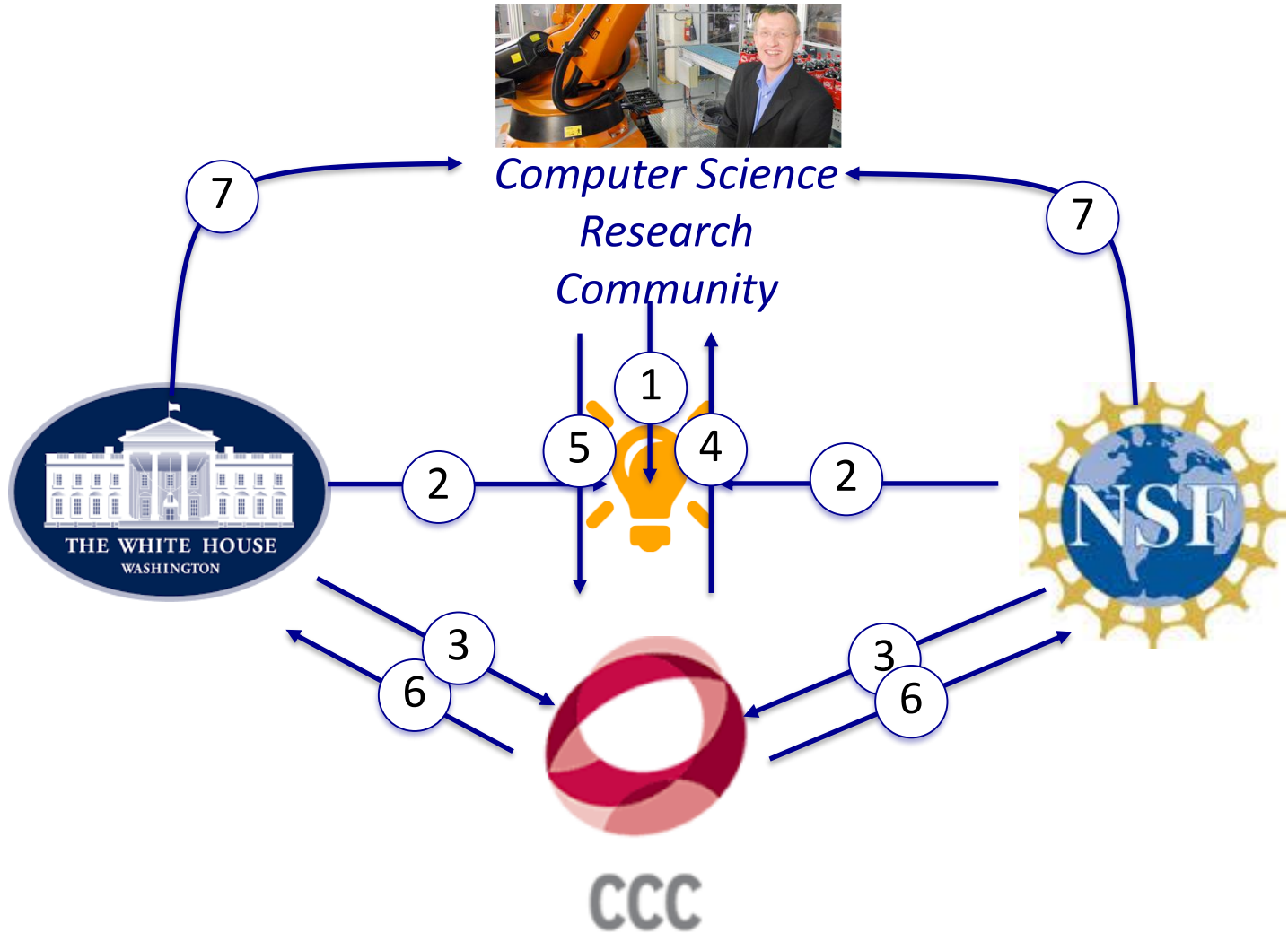
PROGRAM GUIDELINES

Solicitation 13-602

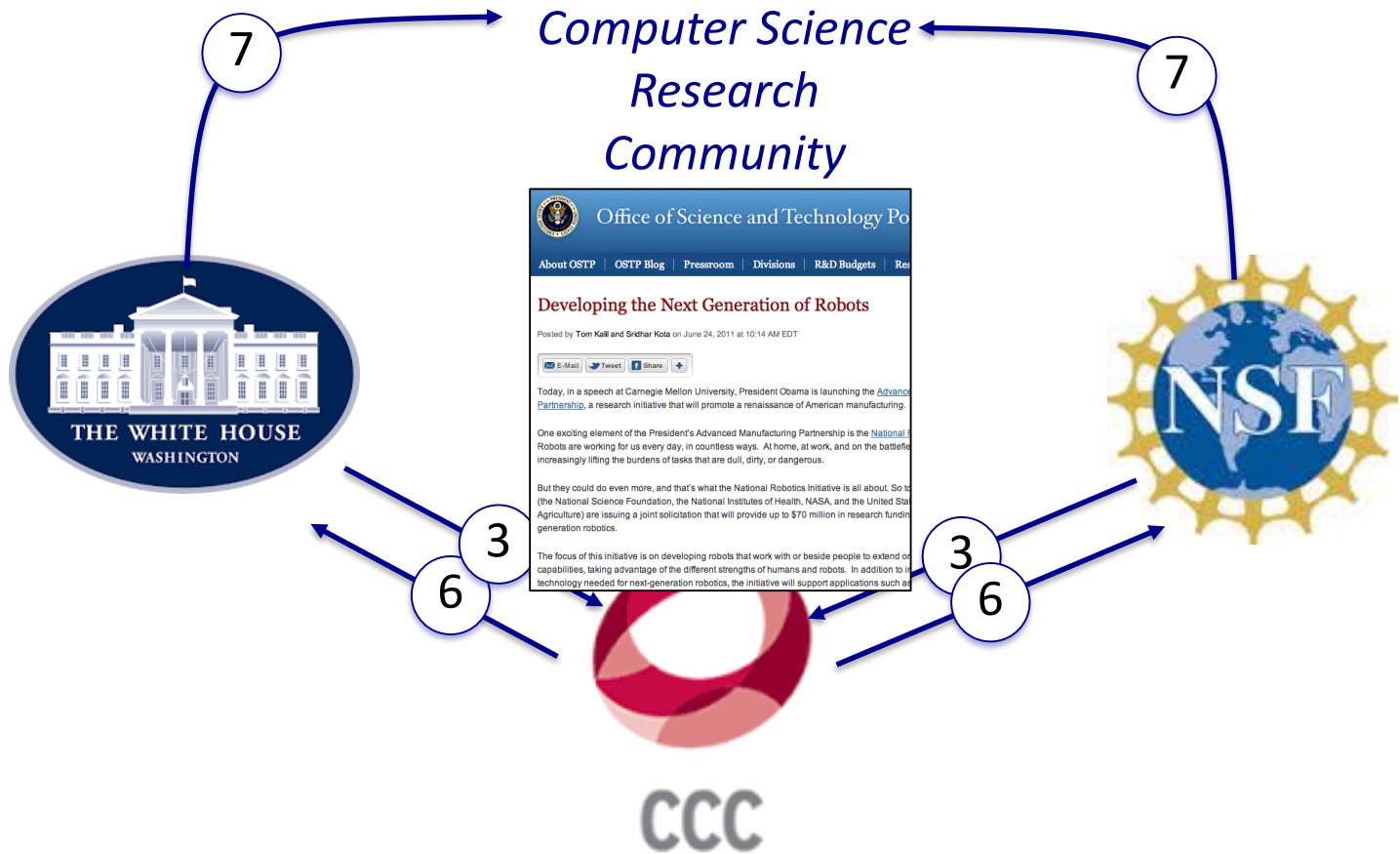
Computer Science
Research
Community



National Robotics Initiative



National Robotics Initiative



Common Themes

- Community-driven, community-responsive, “bottom up”
- Common approach:
 1. Initial community engagement: level of interest, capacity?
 2. Workshops, study group, engaging community, to determine challenges, opportunities
 3. NSF-internal discussions, informed by 2
 4. Solicitation



Where does NSF get strategic input?

National Academies

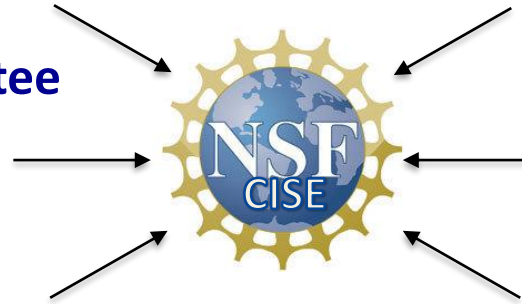
- CSTB meeting (bi-annual)
- CISE NAS studies (e.g., ACI)

CISE Advisory Committee

- Biannual meetings
- Academia, industry

Committee of Visitors

- Every 4 years
- Academia, industry



Computing Research Assoc.

- 2, 3 meetings/yr
- Academia, industry
- Workshops, whitepapers

Industry

- Regular engagement
- Joint solicitations

Additional community input:

- CISE visits to campuses
- Campus visits to NSF
- Community workshops

