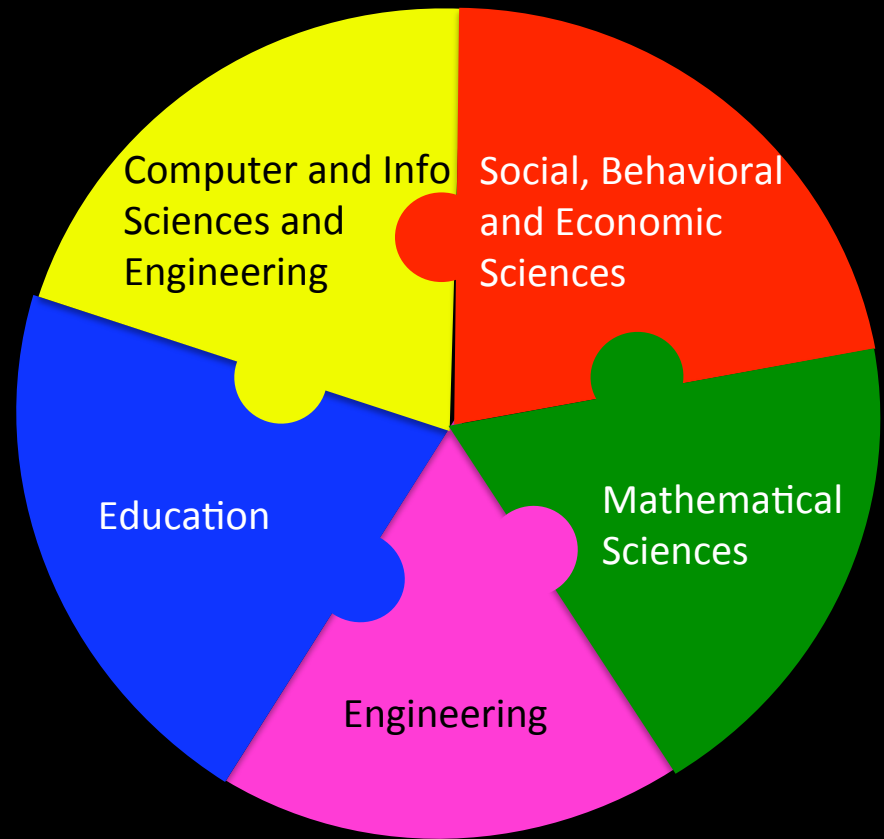# Toward More Secure and Trustworthy Cyberspace

Ken Calvert
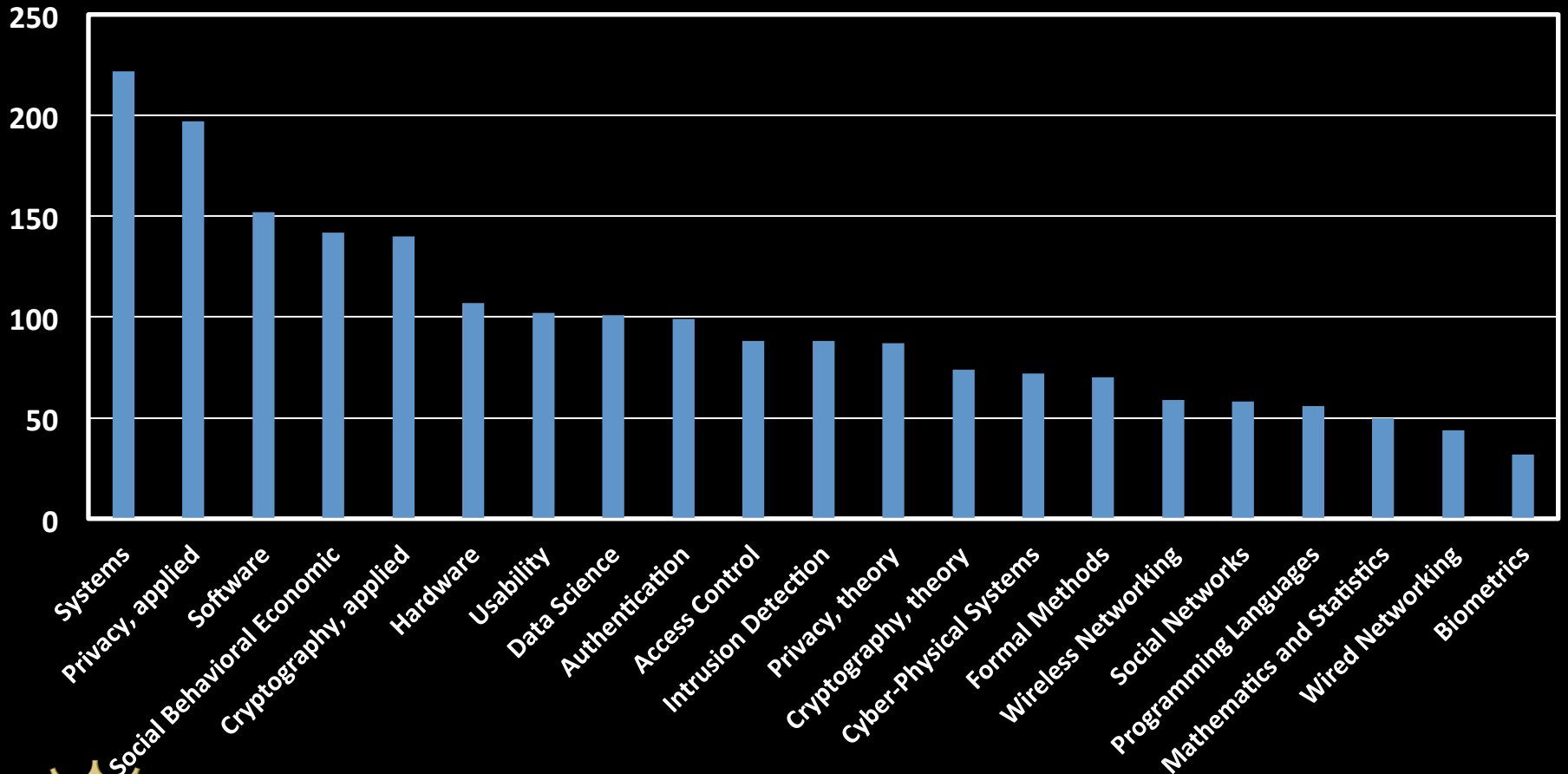
Division Director

CISE/CNS

Secure and Trustworthy Cyberspace

- NSF's flagship program for security and privacy
- An interdisciplinary community of researchers
  - Primarily universities & nonprofits
- FY16 Investment: ~$75M
- ~830 active grants

Computer and Info Sciences and Engineering

Social, Behavioral and Economic Sciences

Education

Mathematical Sciences

Engineering

SaTC Topic Areas
(per PI meeting questionnaire)

SaTC Includes Many Pieces

Base solicitation (Solicitation 16-680)

- Aligned with NITRD Strategic plans
- Holistic, no "perspectives"
- Designations are administrative (not intellectual) boundaries
    - CORE
    - EDU (max $300K, 2 years)
    - STARSS (smalls only, w/Semicon Research Corp.)
        - Secure, Trustworthy, Assured and Resilient Semiconductors and Systems
    - Transition to Practice (small, medium only)

SaTC Includes Many Pieces

Dear Colleague Letters
- – Enabling US-Netherlands Collaboration for Privacy Research (16-027)
- – Special Guidelines for Submitting Collaborative Proposals under the US NSF/CISE - US-Israel Binational Science Foundation International Opportunity (17-020)
- – Enabling US-Brazil Collaboration on Cybersecurity Research (17-024)

SaTC Includes Many Pieces

Dear Colleague Letters

– Enabling New Collaborations Between CISE and Social, Behavioral and Economic Sciences (SBE) Research Communities (17-019)

– Encouraging Reproducibility in Computing and Communications Research (17-022)

Partnerships with Industry

- Intel
  – Cyber-physical Systems Security

- Semiconductor Research Corporation
  – Secure, Trustworthy, Assured and Resilient Semiconductors and Systems (STARSS)

- VmWare
  – Software-Defined Infrastructure as a foundation for Clean Slate Computing Security
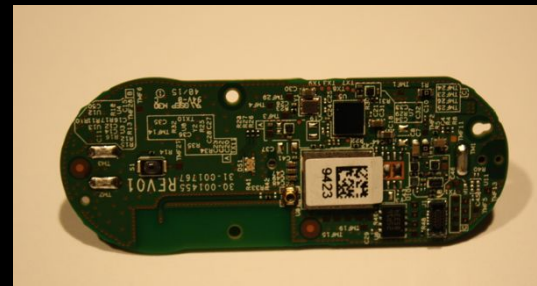
Parting Thoughts

- Ethics
- Data Management
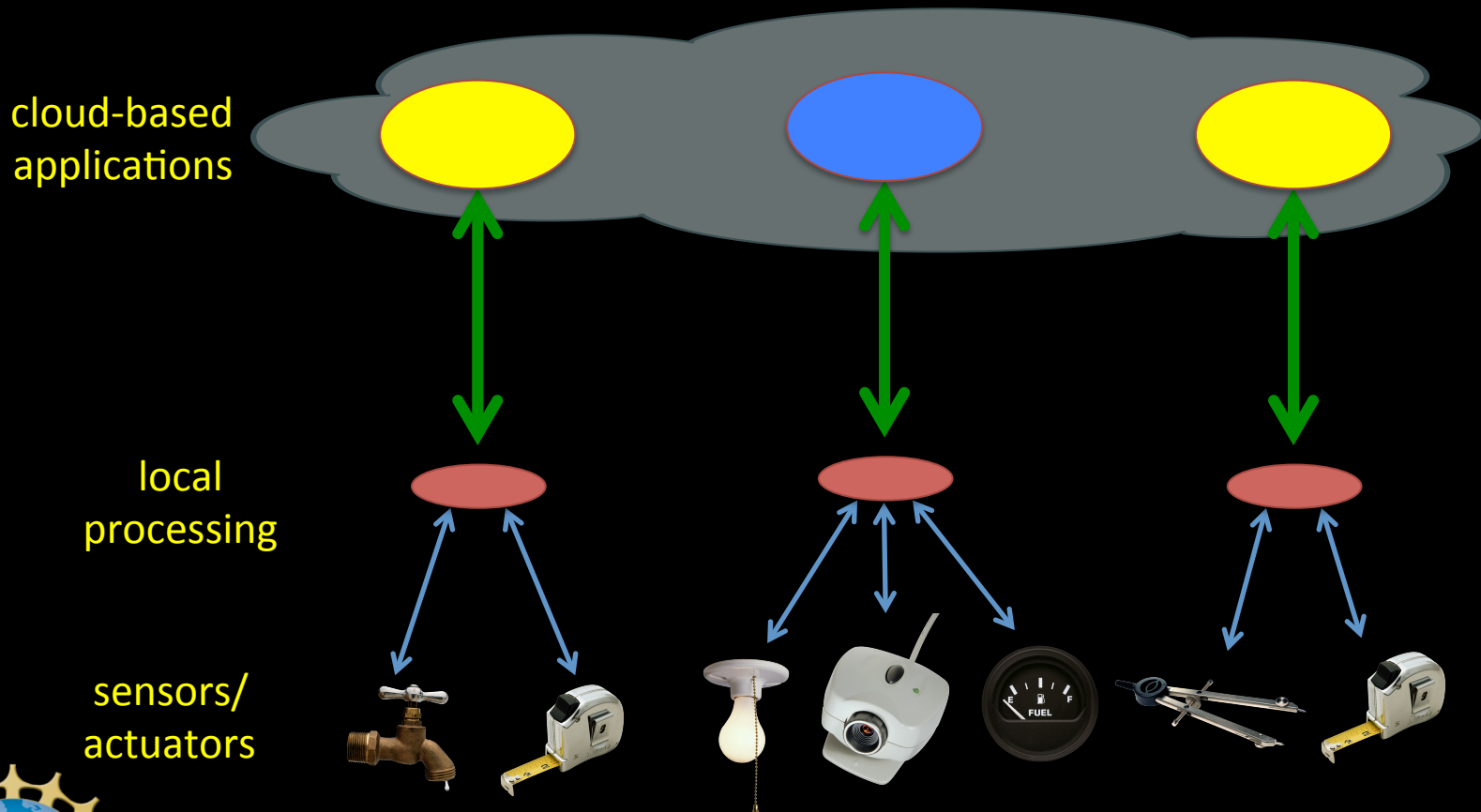- Sociotechnical
- "1000 points of light"

"Internet of Things"
An Illustration

Example: Internet of Things
What We Have (mostly)

cloud-based applications

local processing

sensors/ actuators

Thank You!