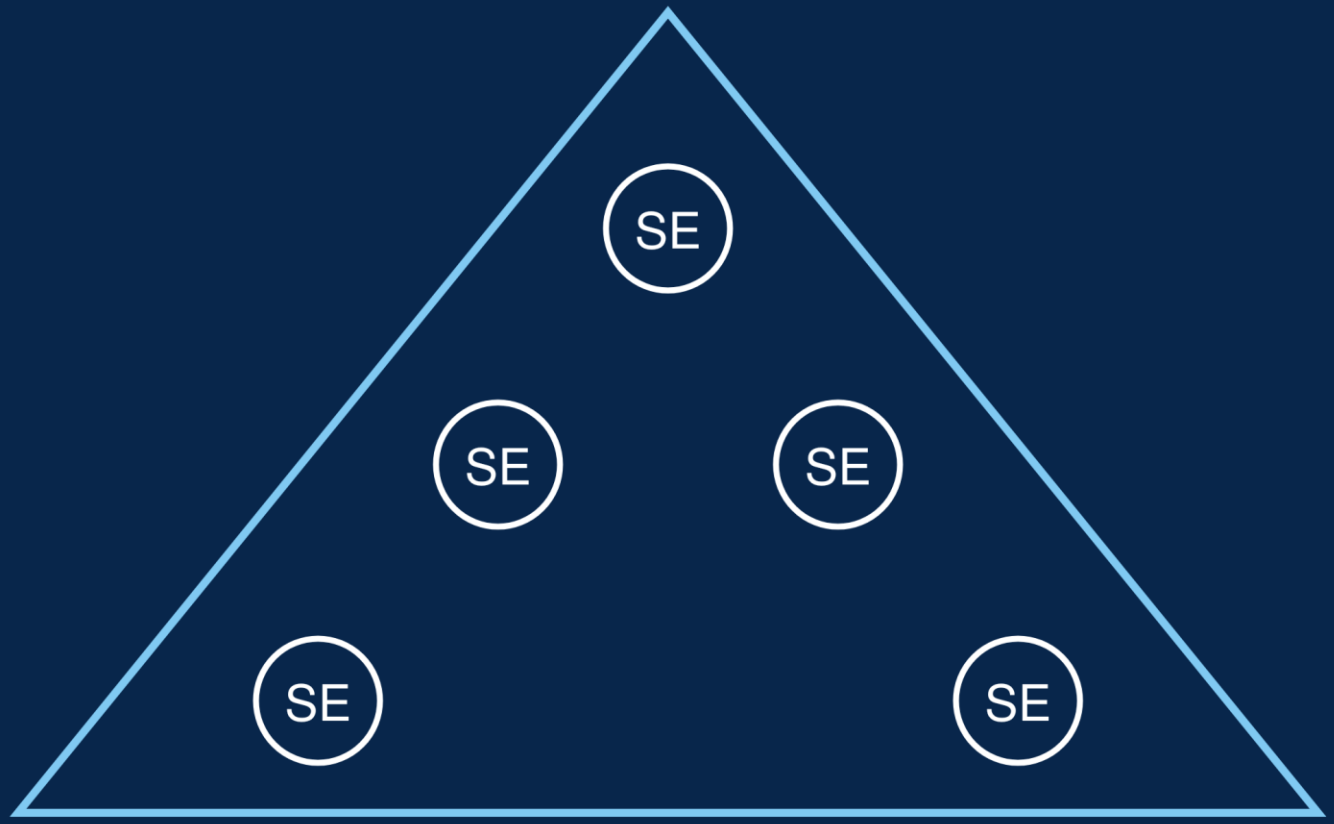
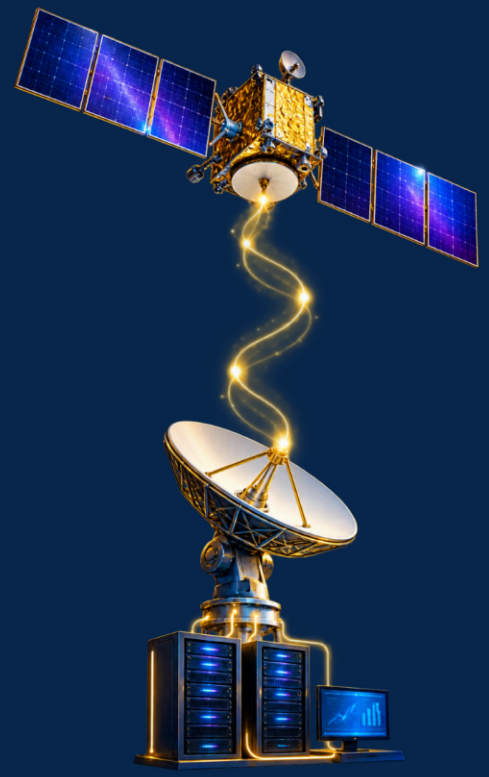
Cyber Physical Systems



System of Interest



Three Hard Problems

- The Black Box
- Cybersecurity Siloes
- Trustworthiness



The Workforce Problem

- Mission (Systems) Engineers
- Cybersecurity Professionals



Security Design Principles

NIST SP 800-160

- Domain Separation
- Mediated Access
- Least Privilege
- Least Functionality
- Protective Failure
- Protected Recovery



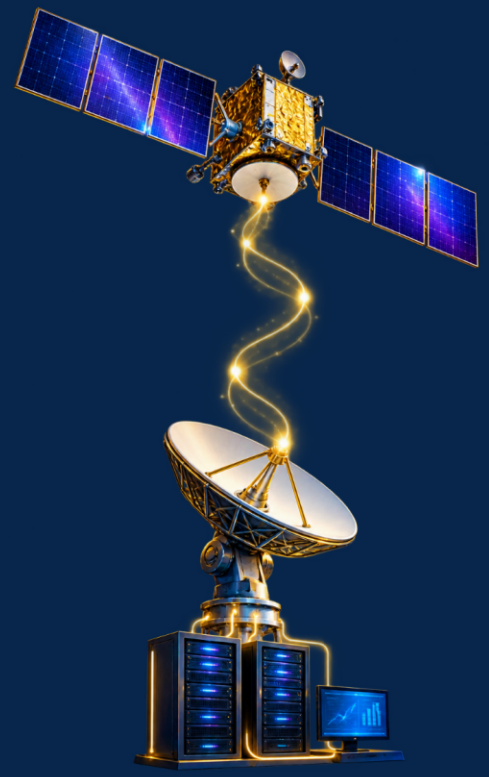
Trust: A Function of Assurance

- Verification
- Validation
- System Analysis



Assurance Cases

- Assurance Claim
  - Subclaim 1
  - Subclaim 2
  - Subclaim n
- Engineering Artifacts (Assurance Evidence)



AULIS

Systems Security Engineering Tool

- Learn
- Build
- Authorize

