

NICE

NATIONAL INITIATIVE FOR **CYBER**SECURITY EDUCATION



The Colloquium 2012 – 16th Annual Gathering
11 June 2012

- **2008 - Comprehensive National Cybersecurity Initiative #8**
 - “...we must develop a technologically-skilled and cyber-savvy workforce and an effective pipeline of future employees.”
- **2009 - 60-Day Cyber Review**
 - Promote cybersecurity risk awareness for all citizens;
 - Build an education system that will enhance understanding of cybersecurity and allow the United States to retain and expand upon its scientific, engineering, and market leadership in information technology;
 - Expand and train the workforce to protect the Nation’s competitive advantage;

March 2010: NICE formed

“...a national campaign to promote cybersecurity awareness and digital literacy from our boardrooms to our classrooms, and to build a digital workforce for the 21st century.”

President Barack Obama

29 May 2009



- **Mission Statement**

“NICE will enhance the overall cybersecurity posture of the United States by accelerating the availability of educational and training resources designed to improve the cyber behavior, skills, and knowledge of every segment of the population”

- **Goals**

- Raise Awareness among the American public about the risks of online activities
- Broaden the pool of skilled workers capable of supporting a cyber-secure nation
- Develop and maintain an unrivaled, globally competitive cybersecurity workforce

Internal Component Structure

NICE
NATIONAL INITIATIVE
FOR CYBERSECURITY EDUCATION



NATIONAL
CYBERSECURITY
AWARENESS



FORMAL
CYBERSECURITY
EDUCATION



CYBERSECURITY
WORKFORCE
STRUCTURE



CYBERSECURITY
WORKFORCE
TRAINING AND
PROFESSIONAL
DEVELOPMENT

NATIONAL INSTITUTE FOR CYBERSECURITY STUDIES (NICS)

National Cybersecurity Awareness – (DHS)

- Promote cybersecurity and responsible use of the Internet, and make cybersecurity a popular educational and career pursuit for older students

Formal Cybersecurity Education – (NSF, ED)

- Bolster formal education programs to focus on cybersecurity and the Science, Technology, Engineering, and Mathematics (STEM) fields

Cybersecurity Workforce Structure – (*DHS, OMB, ODNI*)

- Identify competencies used in workforce planning, training and development, performance management, recruitment and selection
 - Federal Workforce – OPM
 - Non-Federal Government Workforce – DHS
 - Private Sector Workforce – DOL, NIST

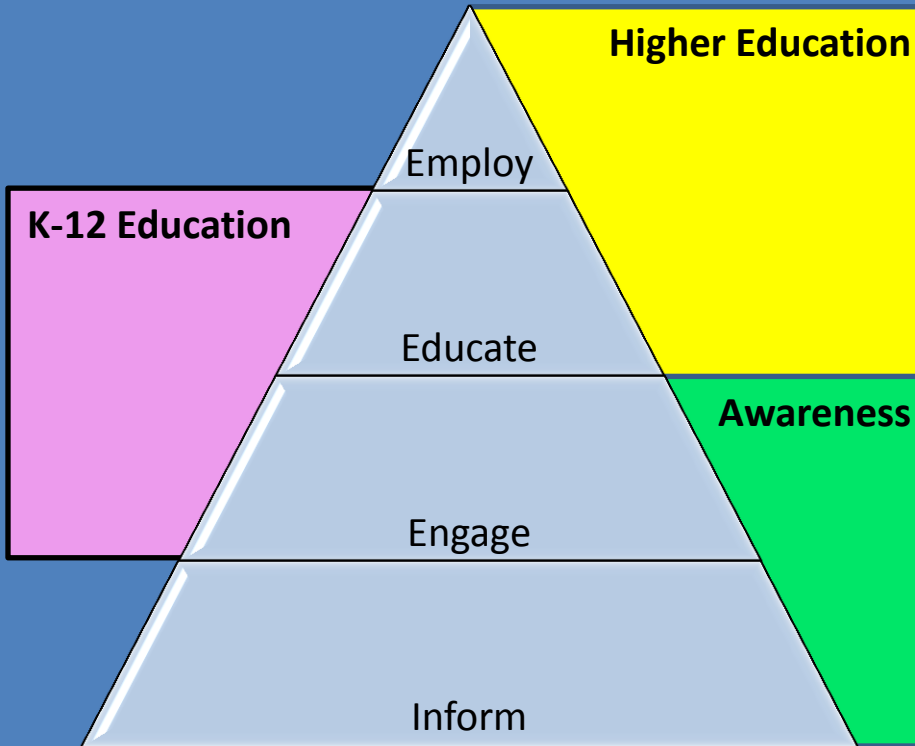
Cybersecurity Workforce Training and Professional Development – (*DOD, ODNI, DHS*)

- Intensify training and professional development programs for existing federal cybersecurity workforce
 - General IT Use – Federal CIO Council, DHS
 - Infrastructure, Operations, Maintenance and Information Assurance – DoD, DHS
 - Domestic Law Enforcement and Counterintelligence – DC3, NCIX, DOJ, and DHS
 - Specialized Cybersecurity Skills – NSA

Proposed Strategic Outcomes

Outcome 2:

Develop the next generation of cybersecurity workers and encourage interest in STEM disciplines.



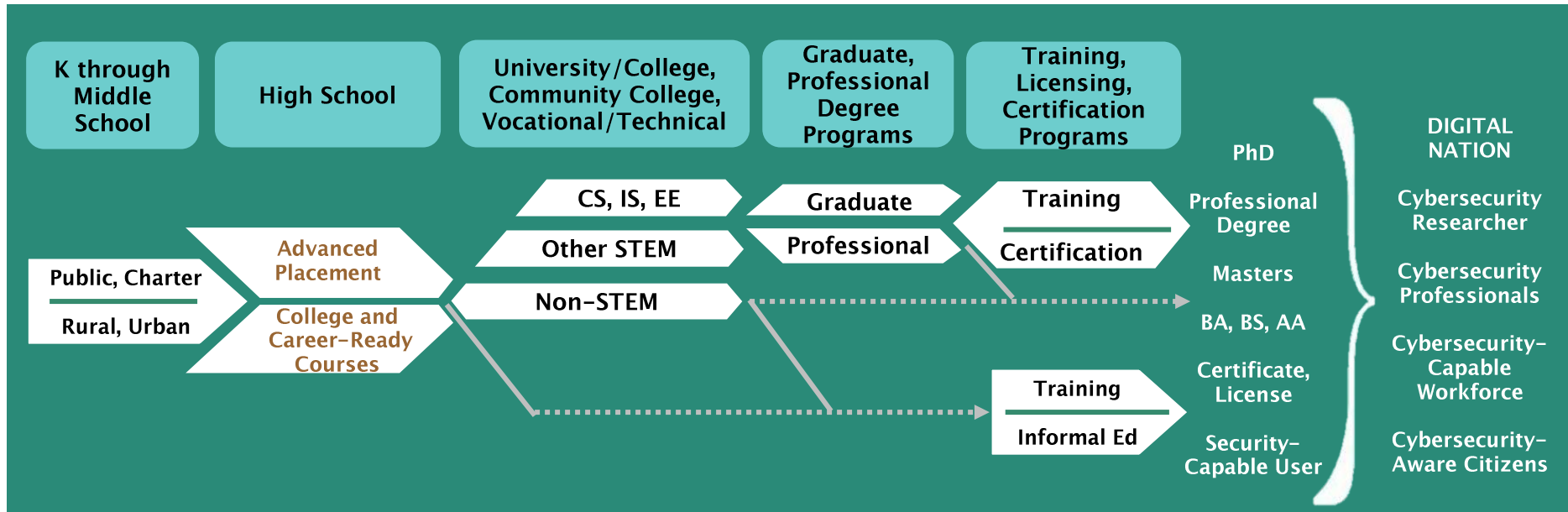
Outcome 3:

Raise the competency and capability of information security professionals and practitioners.

Outcome 1:

Increase public awareness of cybersecurity risks, responsible use of the internet, and cybersecurity as a career path.

The Cybersecurity Talent Pipeline



Pipeline Stakeholders:

- Students
- Parents
- Teachers
- Educational Institutions
- State, Local, Tribal Government
- Professional Organizations
- Commercial Sector
- Federal Government

Pipeline Substrates:

- Curriculum
- Ontologies, Taxonomies
- Standards
- Teacher Preparation
- Public Awareness
- Education Technologies
- Science and Practice of Learning

- Framework for executing the Initiative's mission and achieving its vision
- Identification of major goals & objectives
- Public review period ended 3 October 2011, we received almost 500 comments

Recent and Next 12 Months

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Public Review of NICE
Strategic Plan and
Workforce Framework
Largely completed but
input still welcome

Base Line education, training, and
awareness activities

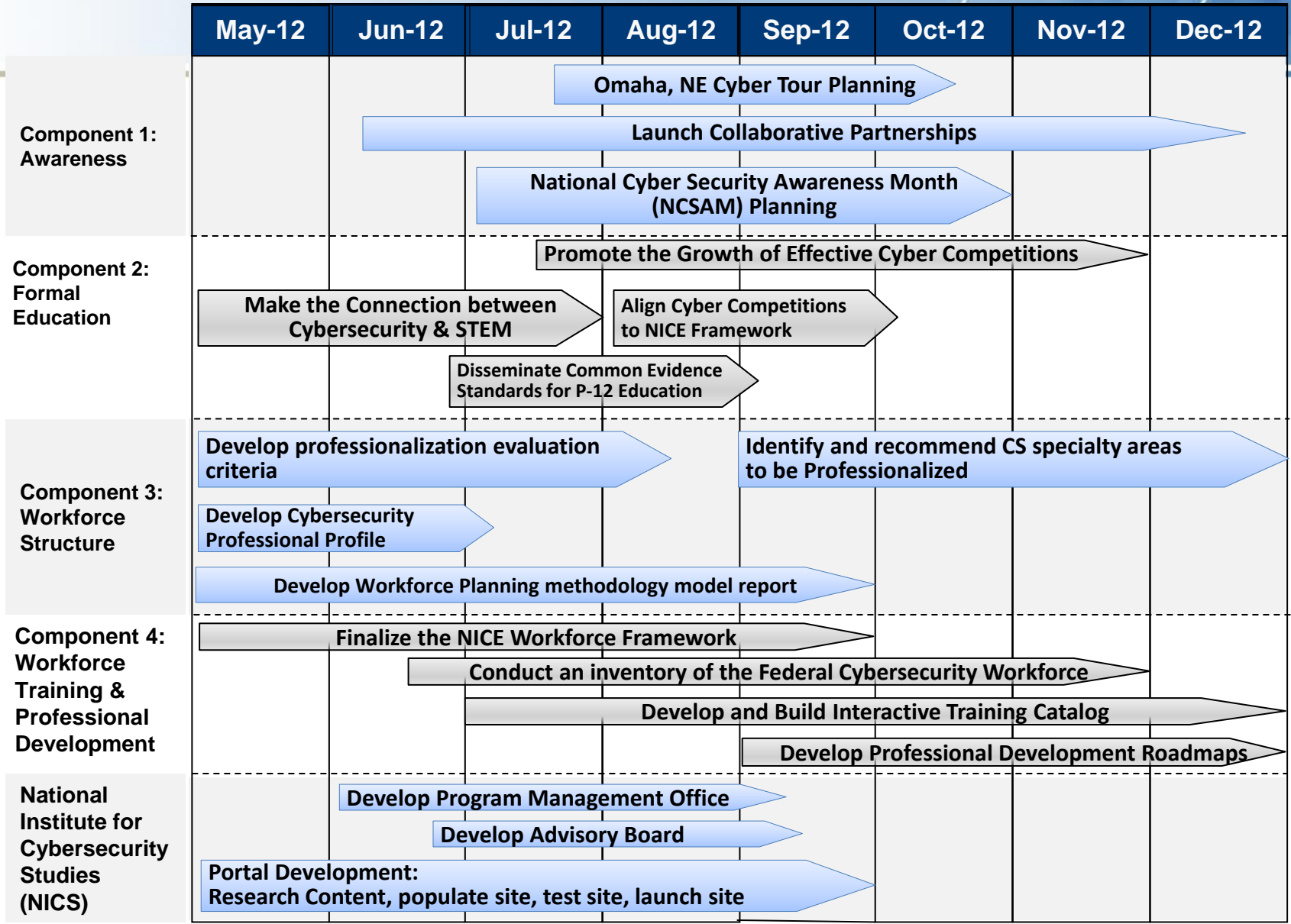
Strategic Plan and Workforce
Framework finalized

Establish Communication
Infrastructure to support all NICE
Components Activities

3rd Annual NICE Workshop 30,31
Oct, 1 Nov 2012 at NIST

- Raised awareness about the risks of online activities
- Effective communication resources
- Annual NICE Workshop
- Activities focused on closing identified cybersecurity education, training, and awareness gaps
- Established metrics to measure progress

NICE INITIATIVE TIMELINE SNAPSHOT: MAY – DEC 2012



Questions



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