SMART AMERICA

SERS

Smart Emergency Response System

Justyna Zander, *PhD*

SERS Team Lead

dr.justyna.zander@ieee.org

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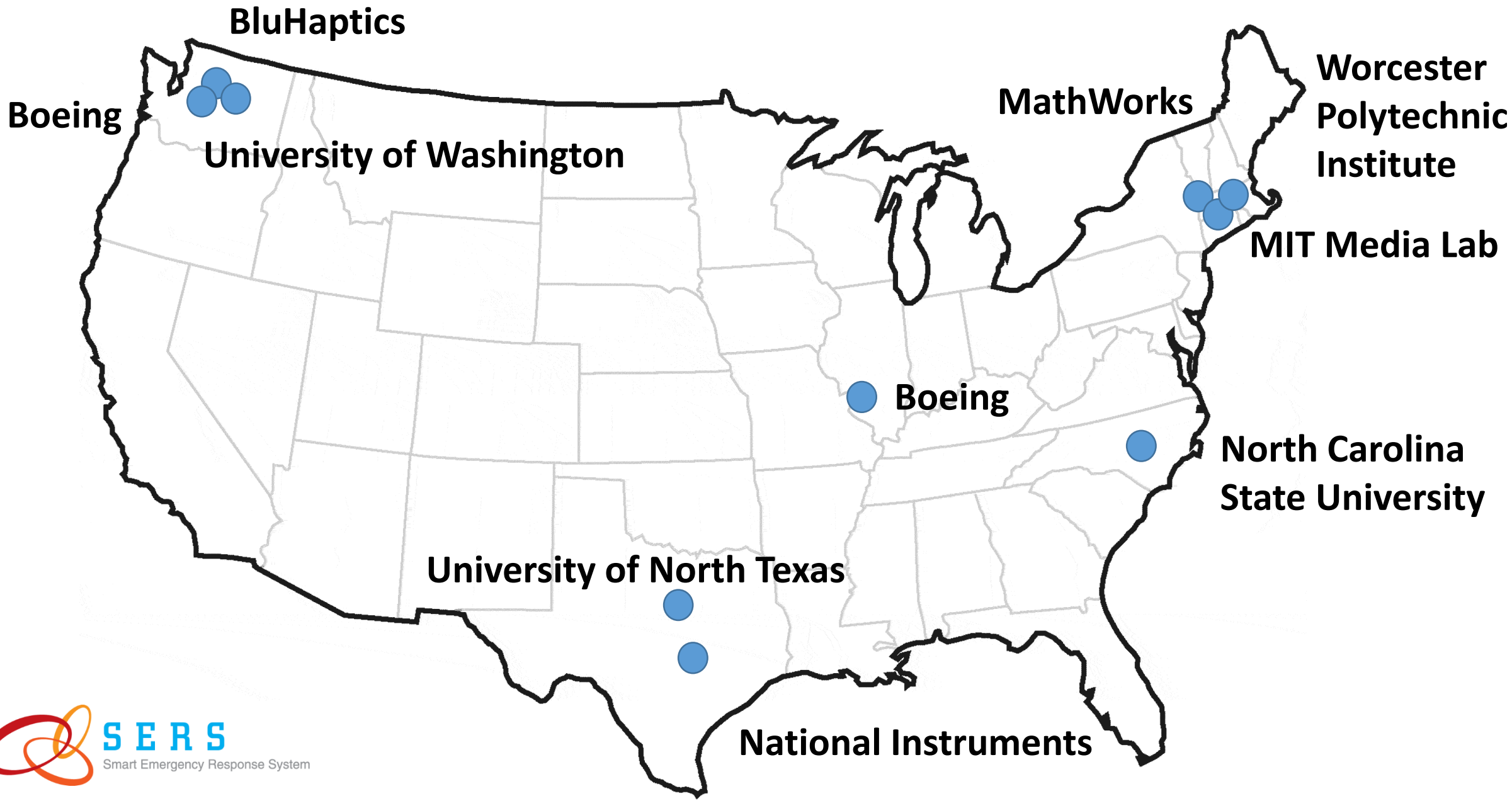
Application Areas



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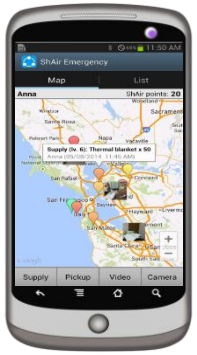
Architecture



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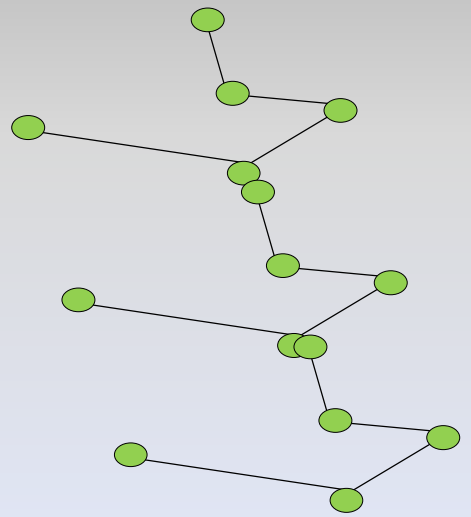
Help request App

Mission Command and Control



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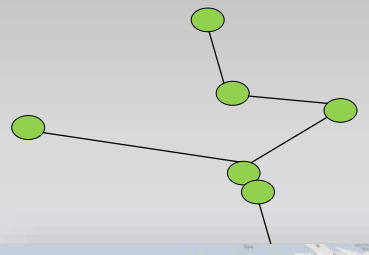

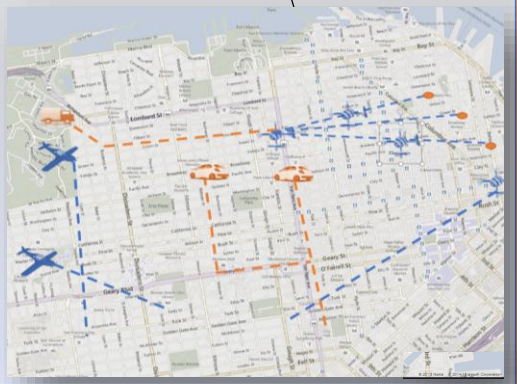

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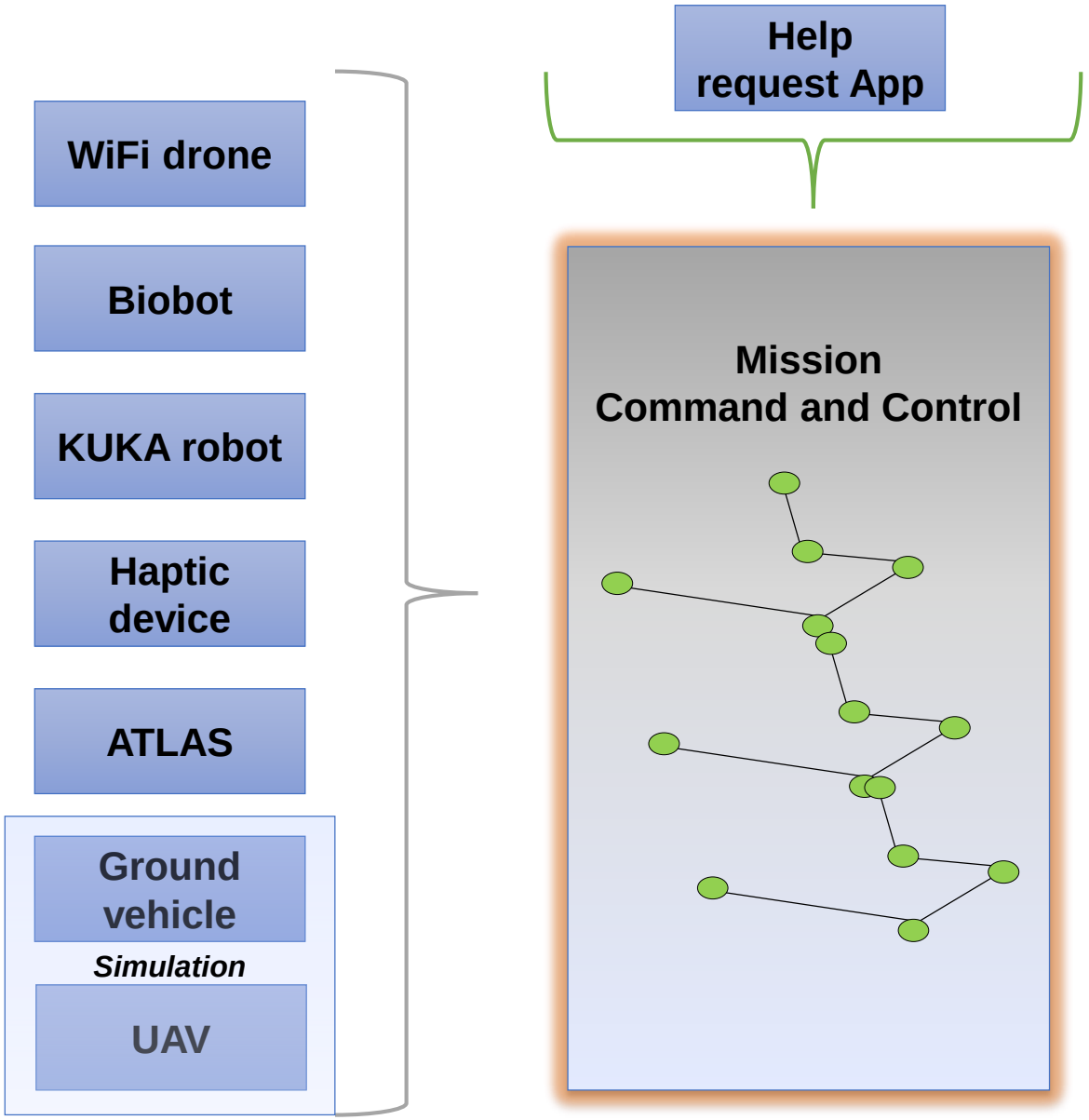

Architecture

WiFi drone

Biobot

KUKA robot

Haptic device

ATLAS

Ground vehicle

Simulation

UAV

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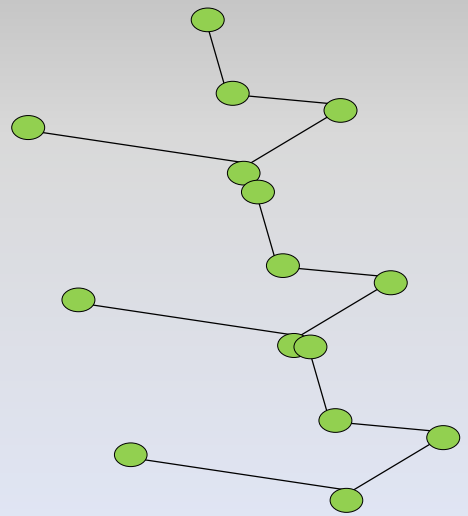

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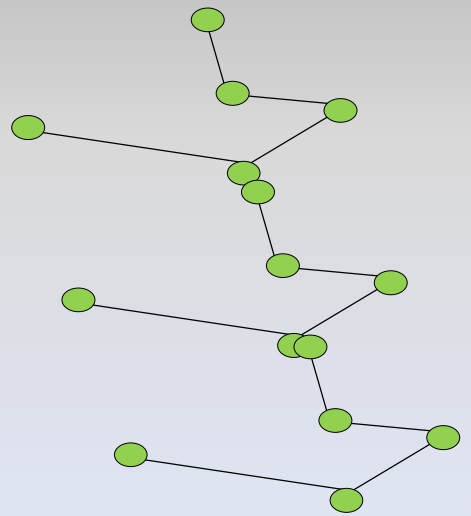

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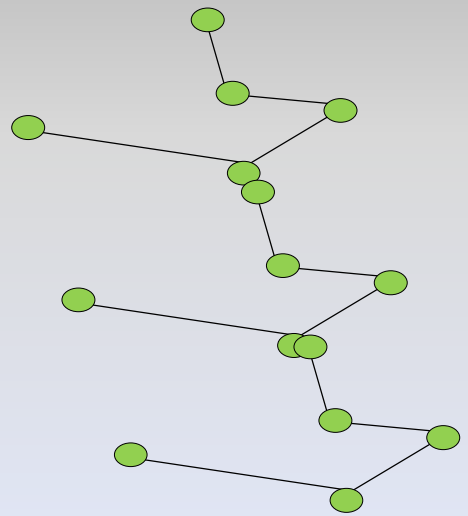

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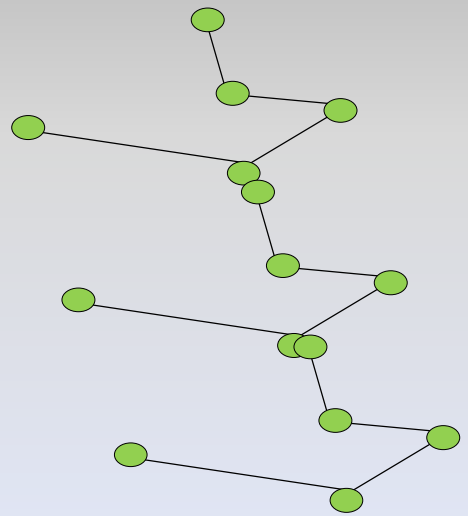

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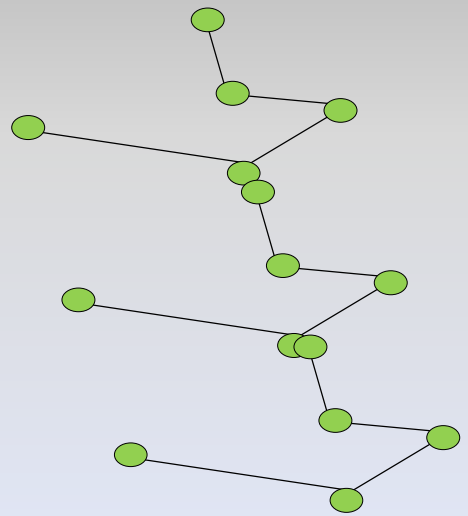

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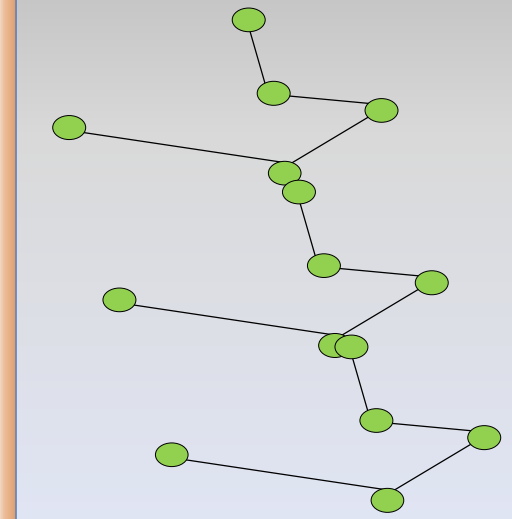

Google Earth visualization

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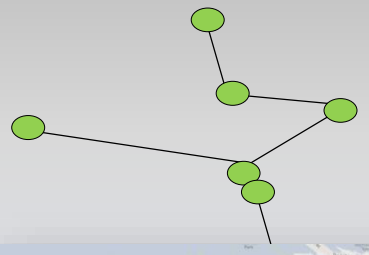
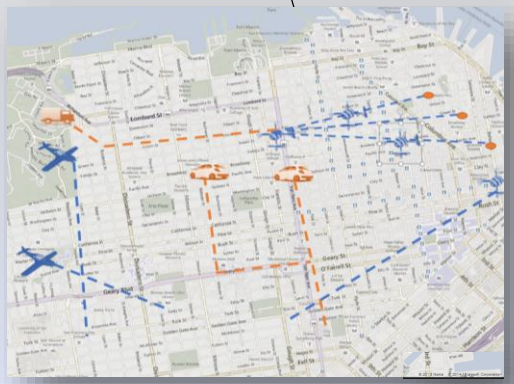
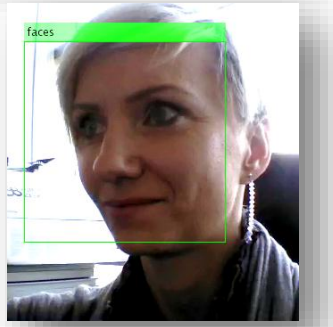




Google Earth visualization

Video stream analysis



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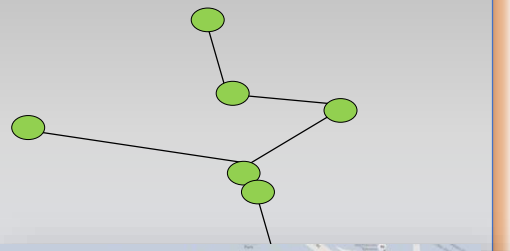
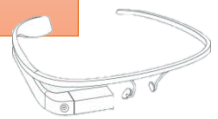


Google Earth visualization

Video stream analysis

Human Machine Interface

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BluHaptics
Boeing
Massachusetts Institute of Technology
MathWorks
National Instruments
North Carolina State University
University of North Texas
University of Washington
Worcester Polytechnic Institute

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Rich Rovner
Vice President of Marketing
at MathWorks

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Government

9 million STEM jobs by 2022

Industry

Academia

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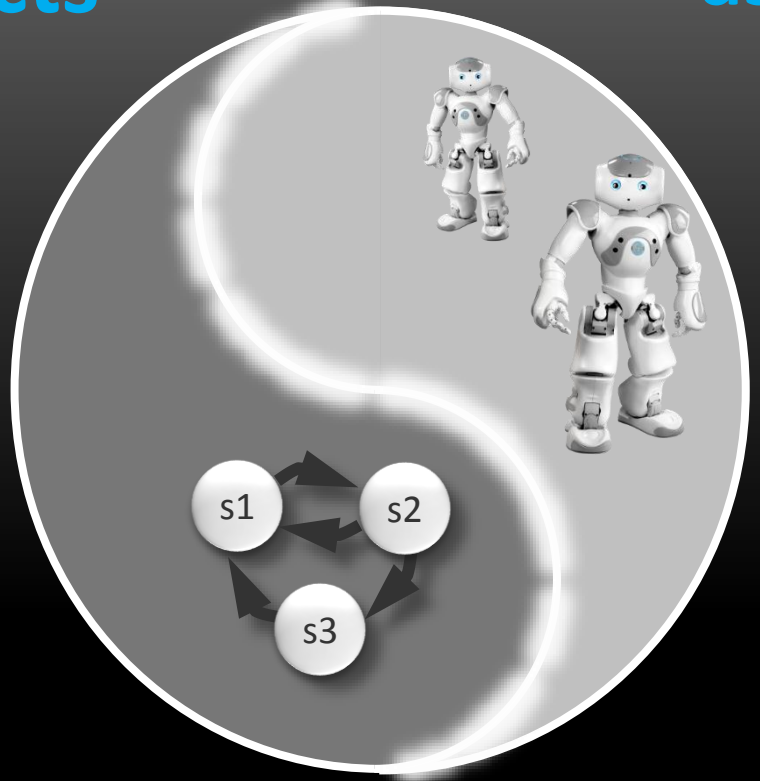
Source: U.S. Bureau of Labor Statistics report, Spring 2014.

Cyber aspects

Physical aspects

Open design

Trusted platform



Deployment

Systems collaboration

Human in the Loop

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Annual fire expenses:
$329 billion

This constitutes **2.1%**
of the U.S. GDP

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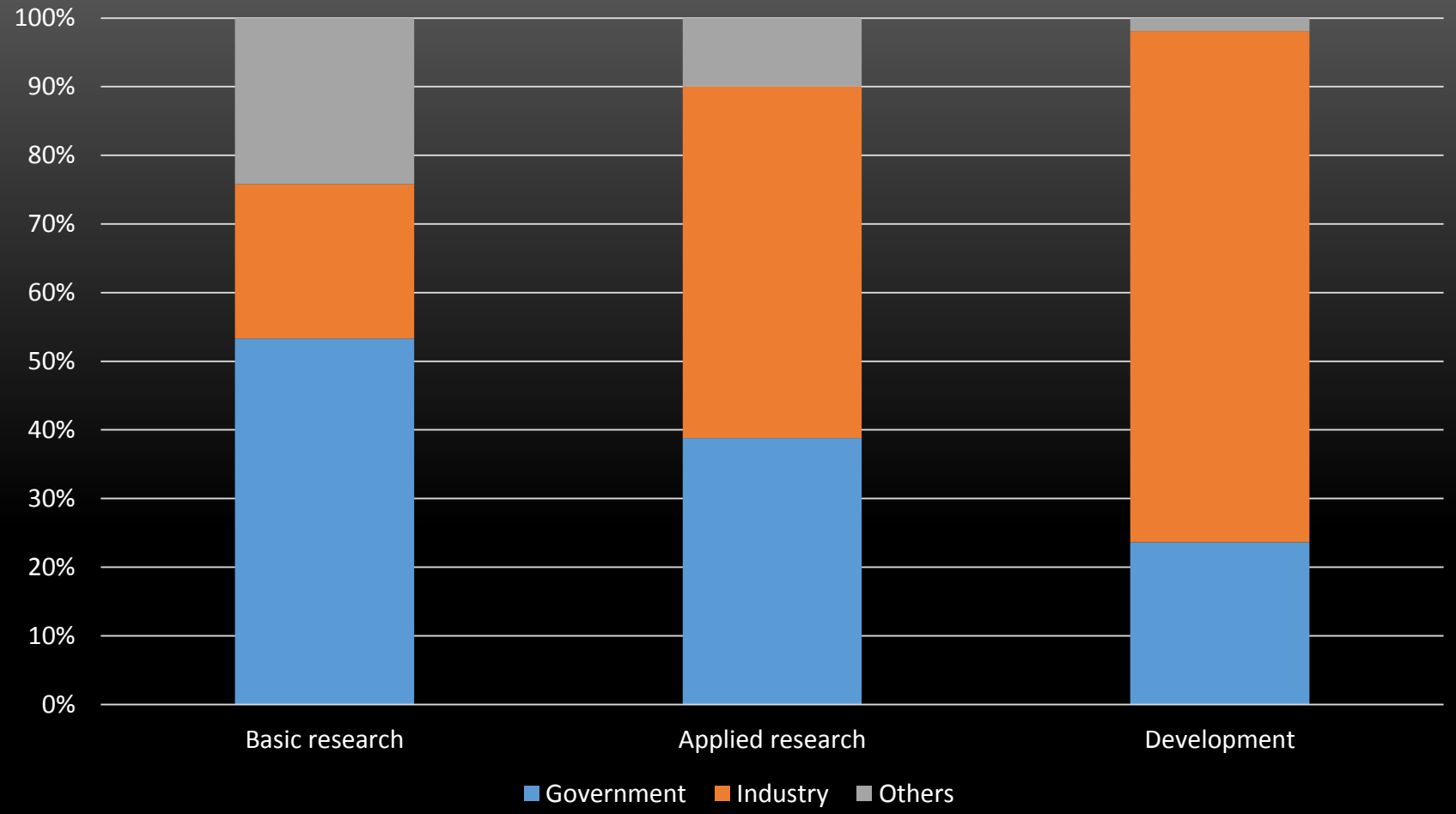
Source: NFPA's report "The Total Cost of Fire in the United States“, March 2014.

Research and Development Funding in the USA in 2011 (report of Fiscal Year 2014)



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Source: FAS report “Federal Research and Development Funding: FY 2014”.

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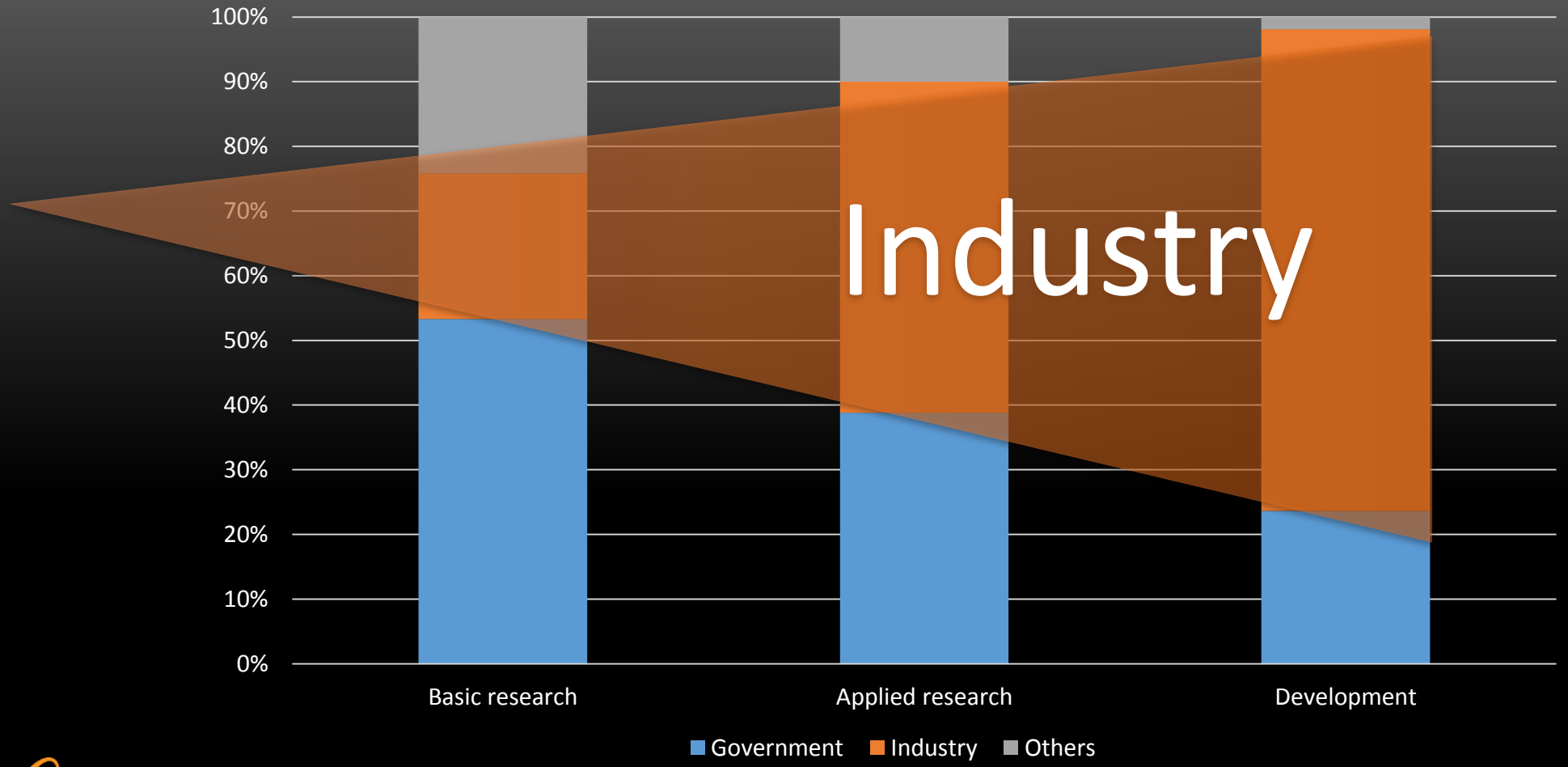

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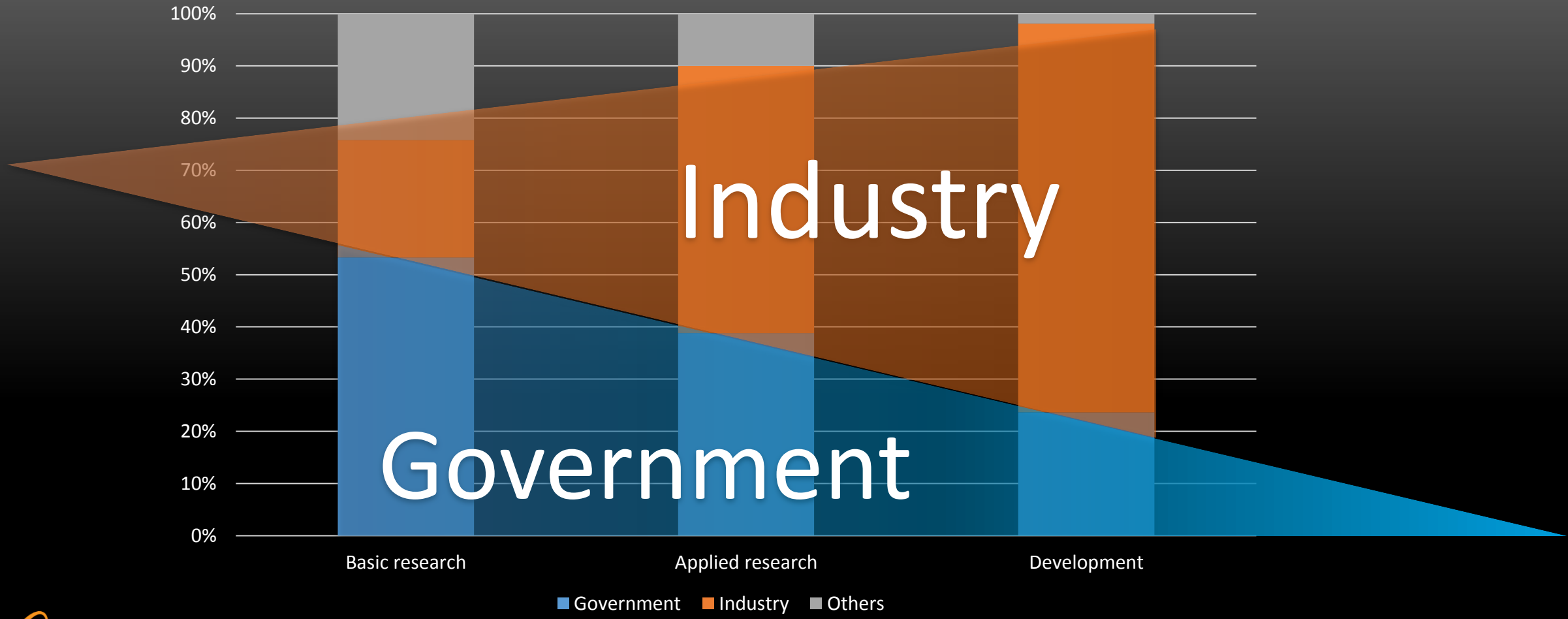

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Source: FAS report “Federal Research and Development Funding: FY 2014”.

Together
For humanitarian cause
To live better and smarter

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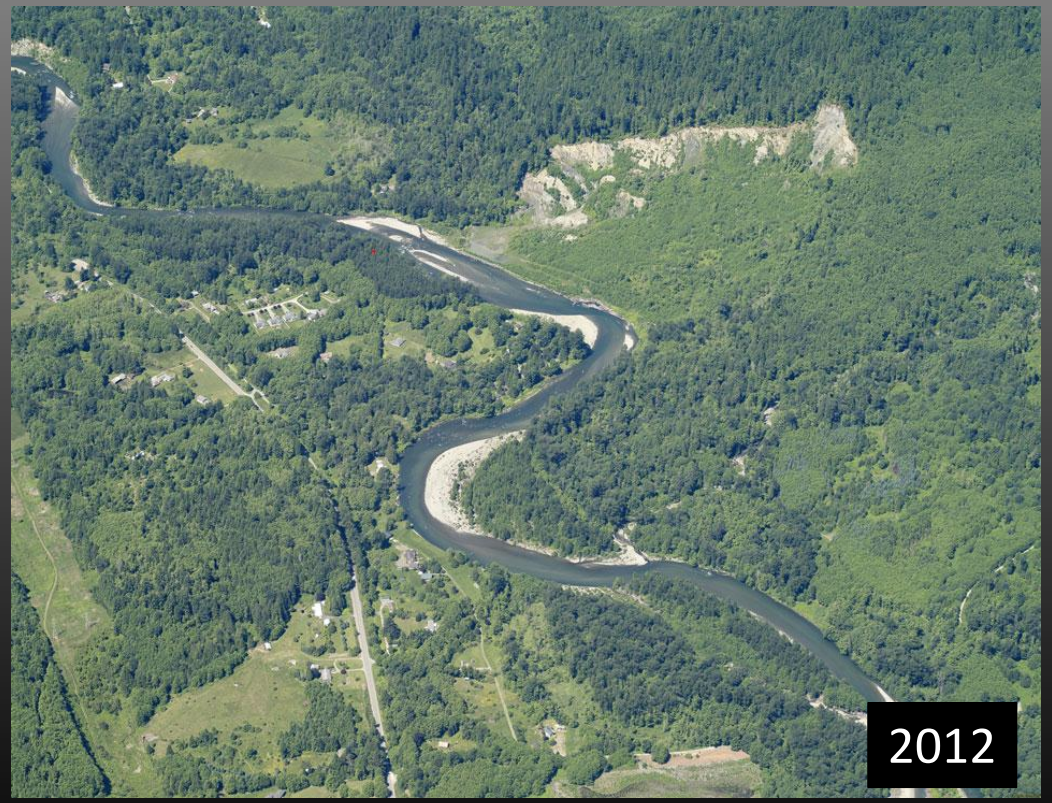
Ray Almgren
Vice President of Marketing
National Instruments



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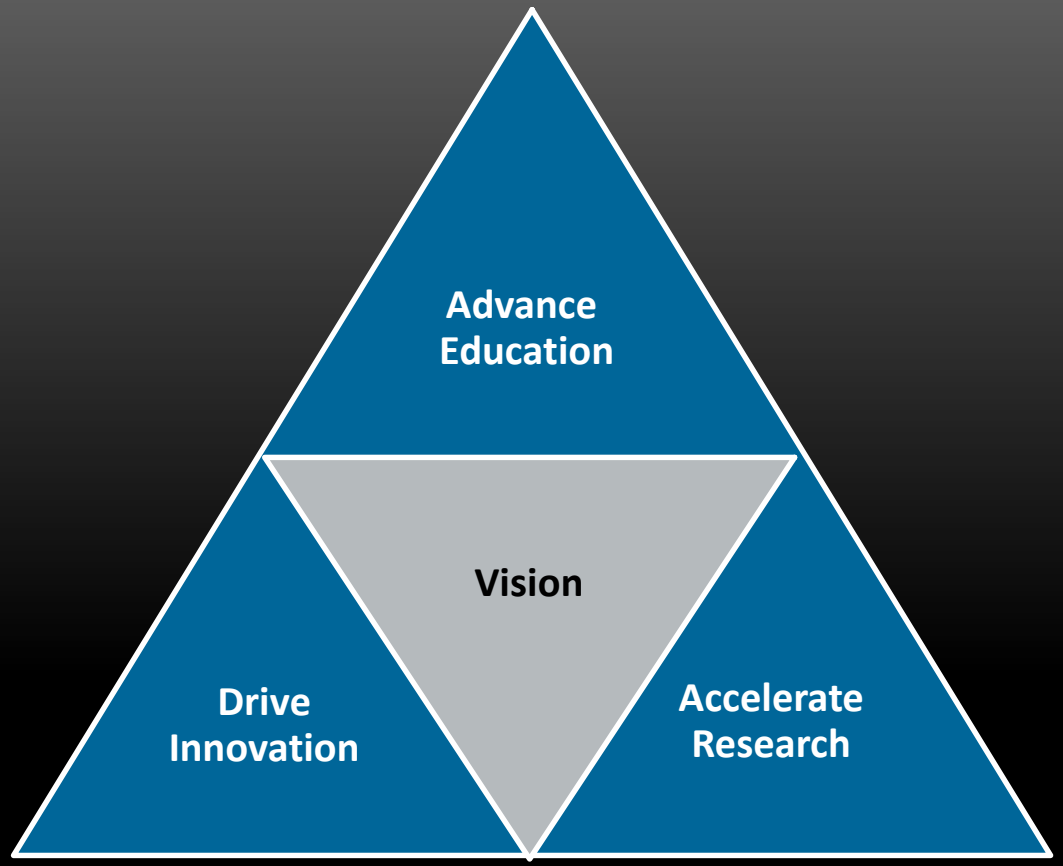

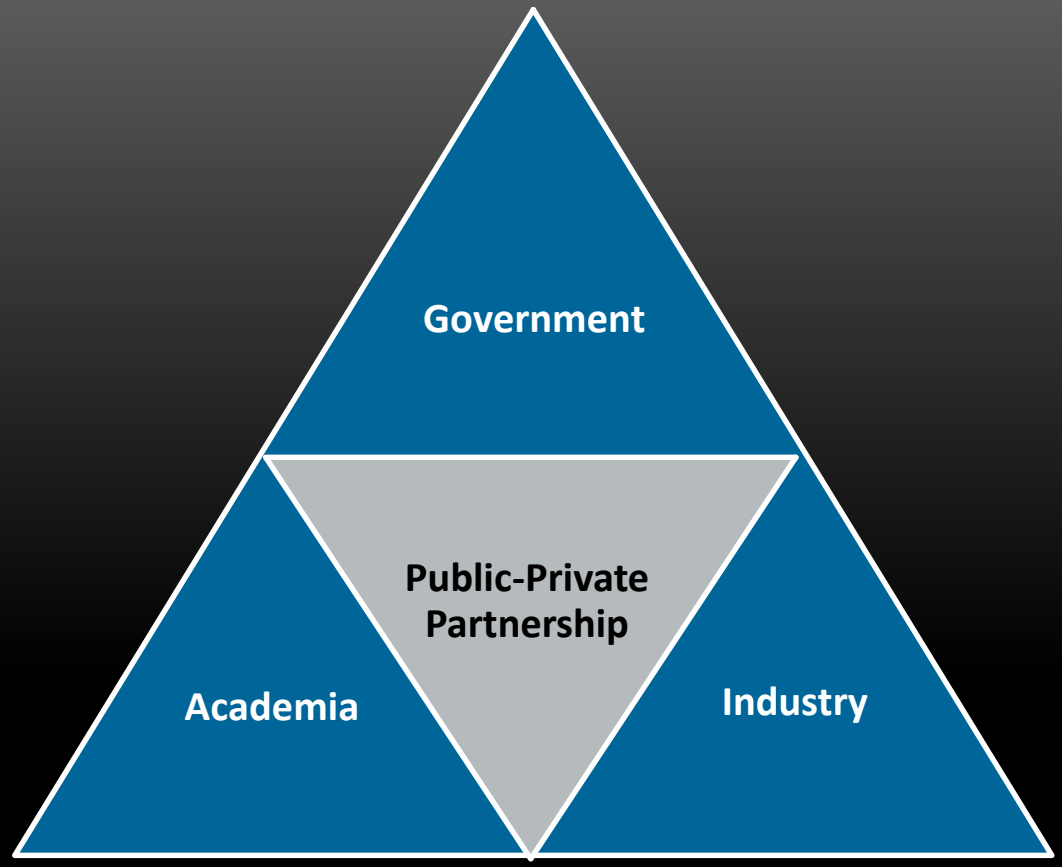

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Advance health informatics

Engineer the tools of scientific discovery

Reverse-engineer the brain

Provide energy from fusion

Engineer better medicines

Provide access to clean water

Enhance virtual reality

Restore and improve urban infrastructure

Develop carbon sequestration methods

Advance personalized learning

Make solar energy economical

Prevent nuclear terror

Secure cyberspace

Manage the nitrogen cycle

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