

Harris Innovation Office

Space and Intelligence Systems

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10/4/16

Remember our MISSION and VALUES!



THIS IS OUR
MISSION

BE THE LEADING
PRODUCER OF NEW
BUSINESS CREATING
INSIGHTS FOR A
BETTER **WORLD.**



ALIGN WITH STRATEGY

SEEK EDGE OF CORE

FOLLOW MEGATRENDS

FOCUS ON HUMANS

BE CURIOUS

SELF DISRUPT



THESE ARE OUR
VALUES

Facilities that Foster Innovation Harris Technology Center (HTC) 2015

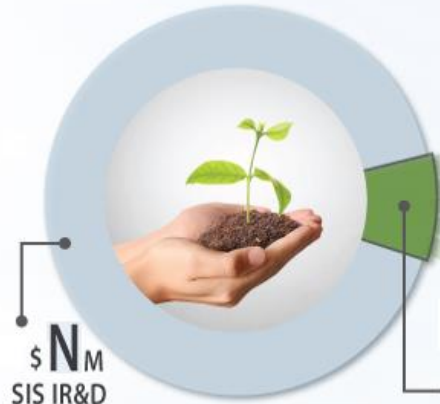


The Innovation Hub (in the center of the HTC)



PLANTING SEEDS OF INNOVATION

2016



\$ $\frac{N}{M}$
SIS IR&D

\$ $\frac{N}{10}$
STRATEGIC

1,000 PEOPLE engaged

206 new IDEAS received

2,000 WEBSITE visits

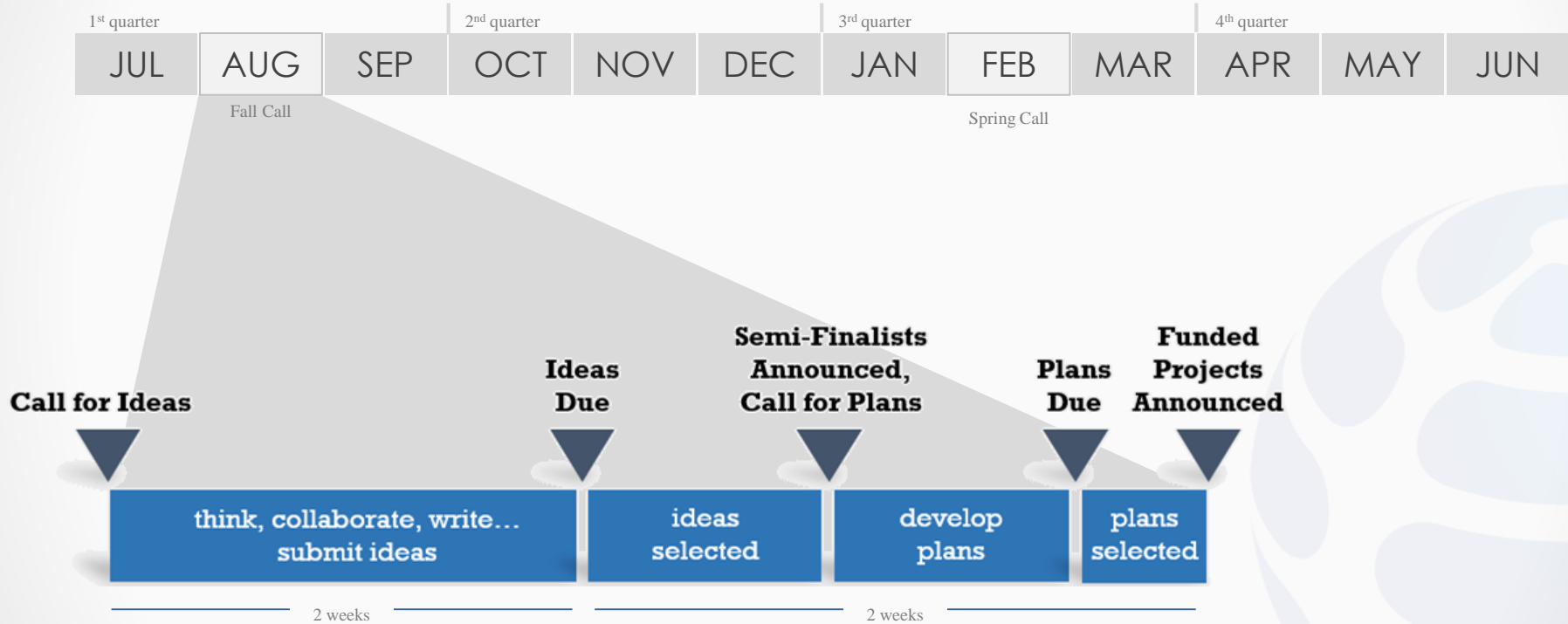
50 PROJECTS supported

11 TRANSITIONS realized

orders
\$46
million



We're always open for business but...



<http://innovation.harris.com>

Fall Ideation focus: Connect with the customer

Our customers have hard problems!

Let's solve them! Ideas related to one of these focus areas will earn you major bonus points!

Space Protection



General John Hyten
Commander
Air Force Space Command

"If, God forbid, someday a conflict does extend from the Earth to space, what are you going to do about it?"

[Read more about Space Protection...](#)

New Data

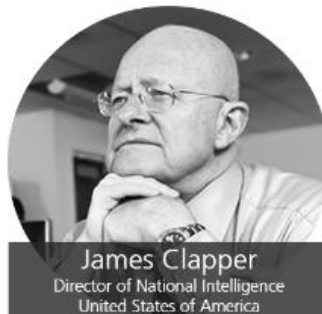


Craig Mundie
Former Chief Research and Strategy
Microsoft Corporation

"Data is becoming the new raw material of business."

[Read more about New Data...](#)

Signal & Data Insights



James Clapper
Director of National Intelligence
United States of America

"Help us find the needles without having the haystacks!"

[Read more about Signal & Data Insights...](#)

Disruptions



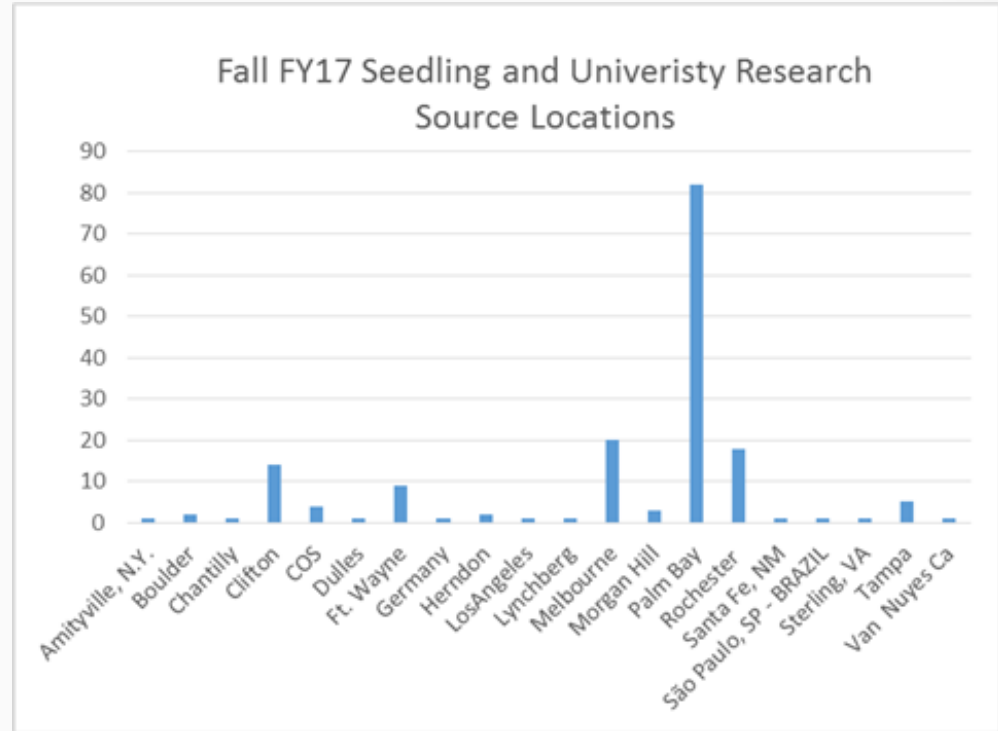
Ash Carter
Secretary of Defense
United States of America

"There are many areas where the potential in leveraging commercially-driven technology is so huge, that we have to embrace it going forward."

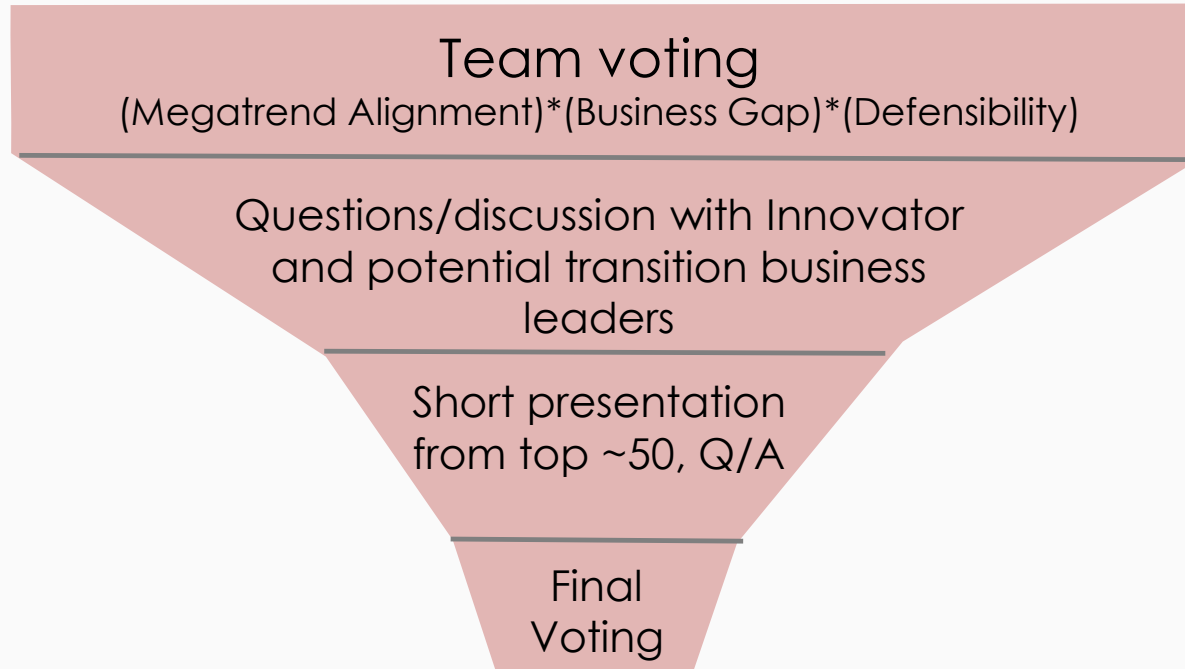
[Read more about Disruptions...](#)

Results:

- 161 Ideas from 20 locations!



172 Business aligned Ideas



22 New Funded Projects

4 new University Projects (15 more in process)

Relationships

- Interaction with national thought leaders in our core businesses
- Attracting future industry leaders to Harris
- Partnering on pursuits

Collaboration

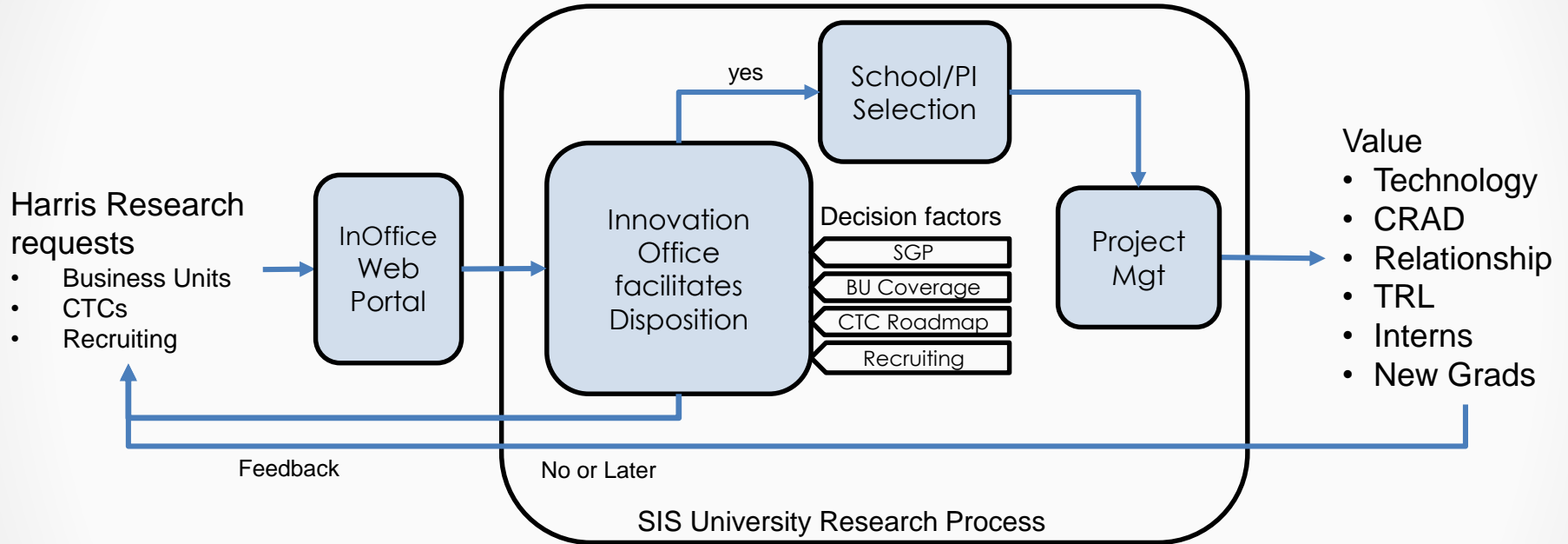
- Bi-direction technology influence (TRL 1-3)
- Participation in core technology consortiums

Leverage

- Low cost labor, access to Capital (Labs, equipment, etc.)
- Matched research funding
- Access to IP

FY17 Focus: SGP and Geographical Alignment

SIS University Research Process



Megatrend Monitoring



Megatrend	Owner
Additive Manufacturing	Tom C
Augmented Reality/ Virtual Reality	Mark
Big Data Analytics - leading to information synthesis	Andy
Climate Change	Tom C
Connected, Semi-Autonomous Vehicles	Bob
Context and Location Based Services	Andy
Crowd Sourcing	Mark
Data as a Service	Tom W
Internet of Things	Tom W
New Space	Tom C
Prolific video sensors	Bob
Space Threats	Andy
Ubiquitous Internet, Global Interconnectivity, Wireless ISPs	Tom W
UAS	Bob
Wearable Computing / Human as a Platform / Mobile Computing	Mark





WHY...

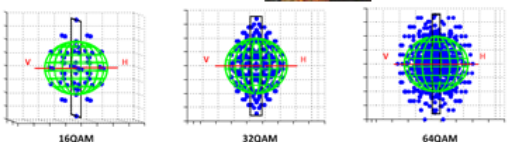
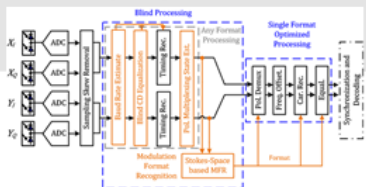
Advances in fiber optic communications and the convergence of the optical-wireless network will dramatically increase the network heterogeneity and complexity

QUESTION

HOW...

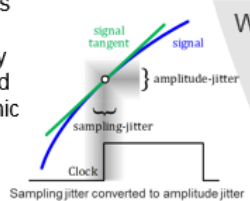
Harris Corporation's Strategic Roadmap and engagement with Georgia Tech has strategically placed us at the forefront of this convergence through its development and deployment of photonic-based coherent receiver technologies that operate across the RF, microwave, and millimeter wave spectrum then out to the near-infrared where optical lightwave communications systems exist.

APPROACH



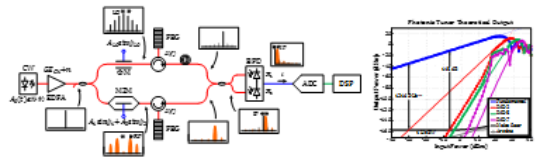
More about the problem...

- In collaboration with strategic partners, Harris has developed a suite of capabilities based firmly on the principles of coherent frequency conversion with specific architectures applied to wireless communication systems, electronic warfare applications, and the new family of fiber optic lightwave systems based on coherent digital signal processing
- Key system applications Harris can address with today's offering include:
 - Ultra-Wideband Photonic Frequency Converting Receiver
 - Blind Wireless Signal Identification
 - Blind Optical Modulation Format Identification

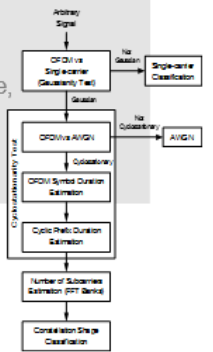


WHAT...

The goal of our research is to create smart receivers that can autonomously identify and demodulate, with little to no a priori knowledge, nearly any signal emerging from the next-generation of high-speed optical and wireless communication networks.



ANSWER



COR TECHNOLOGIES

BUSINESS AREAS

