

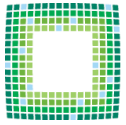


WRIGHT STATE
RESEARCH INSTITUTE

Legislature and Regional Update

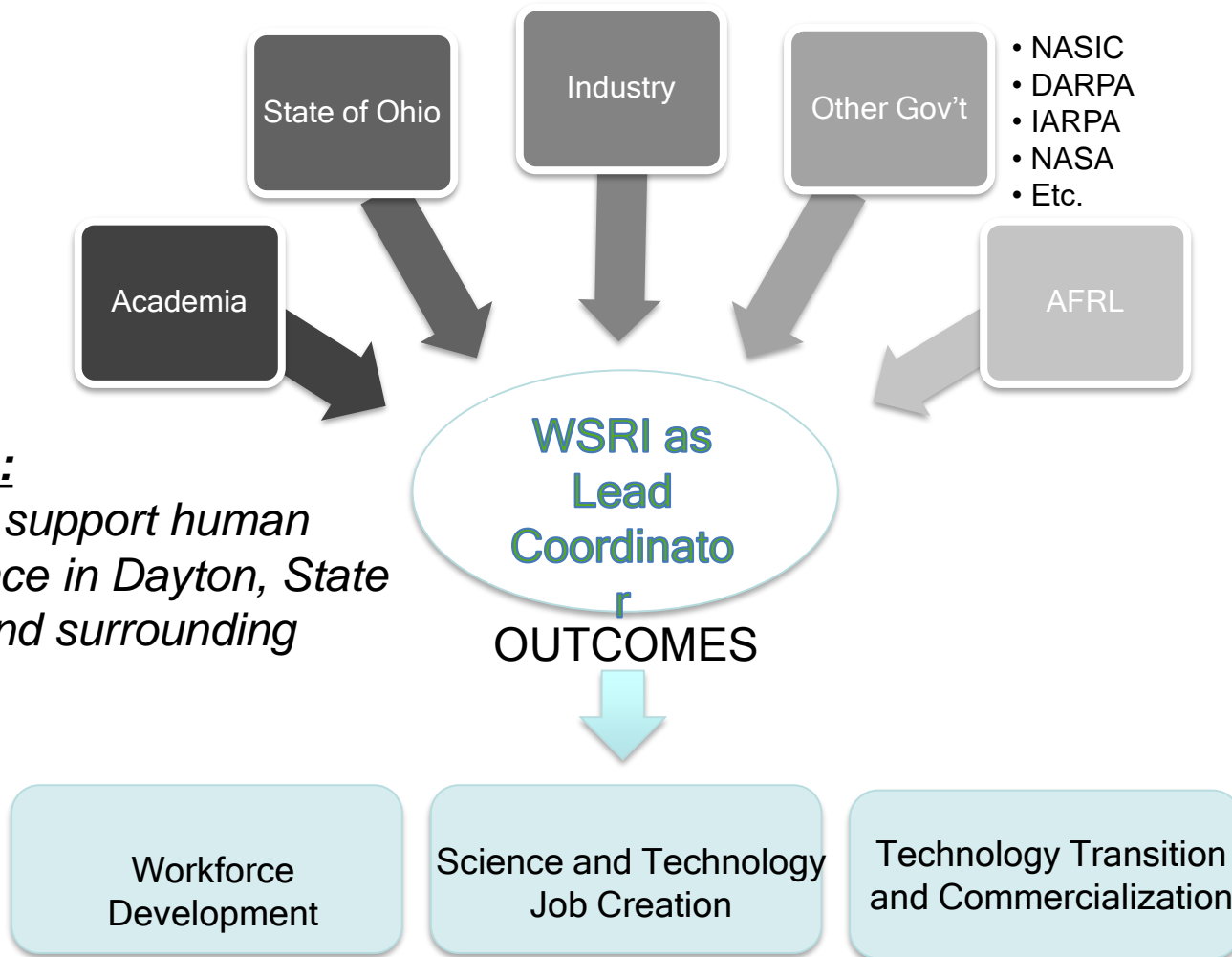
The Alliance for Human Effectiveness and Advancement (AHEAD)

November 7, 2014



- AHEAD was established to create world recognized center for human performance research, technology and commercialization with the objectives to:
 - Expand human systems research portfolio in Ohio
 - Create environment to attract top research talent
 - Partner to attract private investment
 - Collaborate with AFRL and NASIC to add mission value
 - Increase Ohio's share of federal research contracts
 - Create new high value jobs in the Human Performance cluster
 - Protect the AFRL footprint and position the organization for future BRACs

AHEAD CONOPs



Objective:

Grow and support human performance in Dayton, State of Ohio, and surrounding region

AHEAD Collaborators

Academia

Carnegie Mellon University
Case Western Reserve
Central State
George Mason University
Georgia Tech
Georgia Tech Research Institute
Clark State
Cleveland State
Kent State
Lorraine County Community College
MIT
Ohio State University
Ohio University
Penn State
Sinclair Community College
University of Akron
University of Cincinnati
University of Dayton
University of Dayton Research Institute
University of Illinois
University of Michigan
University of Toledo
Western Kentucky
Wright State University

Government

AFRL
ARL
City of Fairborn
City Wide Development
DARPA
Dayton Development Coalition
Greene County
Hearing Center of Excellence
IARPA
ONR
LCMC
NAMRU-D
NASA Glenn
NASA Langley
NASIC
Ohio Aerospace Institute
SOCOM
State of Ohio
- ODS
- OBOR
- OTFP
- ODOT
Transportation Security Administration

AHEAD Collaborators

Industry

361 Interactive

Advratech

AIS

AK Systems

Aptima

ATIC

Austen BioInnovation Institute
in Akron

Avetec

Azimuth

Ball Aerospace

Black River Systems

Booz Allen Hamilton

C1 Technologies

CAMO

Cleveland Clinic

Cornerstone Research

Crown

Cubic

Dayton Children's

Design Interactive

DRA

eDaptive

EWA

Greater Dayton Area Hospital
Association

Henry M. Jackson Foundation

iDialogs

IHMC

IncludeFitness

Ischemia Care

IST

John Deere

Kettering Health Network

Kaleidoscope

KLSS

L3 Communications

Leidos

Lumir

MacAulay Brown

Matrix Research

Net-Scale Technologies, Inc.

Orbital Research

Perceptronics Solutions

Premier Health

Radiance Technologies

Raytheon

RCS

Riverside Research Institute

Roth Cognition

SAIC

Select Tech

SOAR Technologies

Spectral Energies LLC

SRA

SRI International

TDKC

Teledyne Scientific

Tenet 3 Technologies

The Charles Starks Draper Laboratory

The Perduco Group

Titus Human Performance Solutions

UES

Vecna

Wright Brother's Institute

Zygo Digital

Workforce Development Activities

- ❑ APDC - Aerospace Professional Development Center
 - ❑ Focus on Ohio aerospace and defense employers to fill their critical needs
 - ❑ Ensuring Ohio has a skilled workforce that meets the needs of employers.
- ❑ ATIC - Analyst Testbed Hosting and Support
 - ❑ One of a kind multi-level secure workforce training testbed in US.
 - ❑ 2000 Students from 28 Different States and most stayed in Ohio.
- ❑ SOCHE - Hiring annually 700-900 + interns across region
 - ❑ AFRL, AFIT, and Multiple Businesses
 - ❑ Sinclair College, Clark State College, Cedarville University, Central State University, University of Dayton, Wright State University + Many others
- ❑ STEM Collaborative - Regional STEM Coordination
 - ❑ Collaboratively working with Industry and Government stakeholders to implement priority solutions, to leverage resources, and to advocate for and support ways to enhance STEM programs and talent across 14 counties
- ❑ Tenet3 - Cyber Workforce Development
 - ❑ Developing Cyber Talent that is directly supports Sinclair College, University of Dayton and Wright State University

Jobs Creation to Support WPAFB

- ❑ IST - Modeling and Simulation for Unmanned Systems
 - ❑ Supporting multiple AFRL Directorates
- ❑ LEIDOS - Analyst Testbed and Creation of Blue Devil Test Lab
 - ❑ Only multi-level secure sensor exploitation facility in US
- ❑ Perduco - Biomedical Data Analytics
- ❑ Radiance - SOCOM Green on Blue Human Assessment System
 - ❑ Transitioning AFRL Technologies to SOCOM
- ❑ Selectech - RPA Operations and Support
- ❑ SRA - Analyst Testbed Support and Administration
- ❑ Ohio UAS Test Center - Modeling and Simulation and Test Support

Strategic Hires in the Region to Support Job Creation

- ❑ Dr. Pete Trautman Cal Tech, and Boeing Seattle (Matrix) - Autonomy and Robotics
- ❑ Dr Tim Broderick (WSRI) University of Cincinnati and DARPA - Biotech
- ❑ Dr Ali Reiter (ATIC) and Dr Chad Reiter (WSRI) Penn State and DARPA - Physiology and Biology
- ❑ Dr Cassie Barlow (APDC) USAF Retired
- ❑ Krissy Howard (Perduco) - Bio-science and Data Analytics
- ❑ Dr Ron Storm (Perduco) - Human Performance Assessment and Physiology
- ❑ Mike Fisher (Perduco) - IT and Bioinformatics
- ❑ Chris Evan (Cubic) - Systems Integration in Simulated Environments
- ❑ Tim Patton (Cubic) - Psychology and LVVC
- ❑ John Jannazo (Cubic) - Systems Integration in Simulated Environments
- ❑ Todd Norell (WSRI) DARPA/IARPA Classified Programs
- ❑ Bruce Howard (WSRI) DARPA/IARPA/SOCOM
- ❑ John Nehrbass (WSRI) - Imaging Processing and Analysis
- ❑ Kelly Dungan (WSRI) Computational Electromagnetics
- ❑ Dr Mike Weisend (WSRI) - Neuroscience
- ❑ Buddy Husaic (Advratech) - Big Data
- ❑ Joe DaPore (Advratech) - IT Development
- ❑ Andrew Berger (Advratech) - IT Development

Strategic Hires in the Region to Support Job Creation

- ❑ James Gates (Advratech) - Business Development
- ❑ Gene Price (Advratech) - Big Data
- ❑ Brandon Hurt (Advratech) - Big Data
- ❑ Becky Mescher (AHEAD) - Communications and Event Management
- ❑ Colin Morrow (Radiance Technologies) - Business Development
- ❑ Brendan Rice (Radiance Technologies) - IT Development
- ❑ Dr. Jeff Smigelski (SOCHE) - Mathematics
- ❑ Dr. Mike Cox (WSRI) - Human Cognition
- ❑ Jess Kane (WSRI) - Biomedical Engineering and Anatomy
- ❑ Dave Malek (WSRI) - Psychology
- ❑ Ryan Eder (Include Fitness) - Exercise Physiology and Engineering
- ❑ Mark Prevost (Include Fitness) - Business Development
- ❑ Jeff June (Ischemia Care) - Bio-testing
- ❑ Roger Edwards (Accelerant) - Entrepreneur in Residence
- ❑ Ken Edge (AIS) - Cyber Security
- ❑ Gogi Kumar (Dayton Children's Hospital) - Neurologist

Human Performance Related Job Creation with Wright Patterson AFB

Job Name	Domain	Client	POP	Ceiling	Ongoing Proposals	Jobs/Year
Analyst Test Bed	Defense	AFRL	15-Sep-12 thru 15-Jan-17	\$7,899,849.00		45
LVC Tech Support	Defense	AFRL-RHC	01-Sep-12 thru 31-Dec-14	\$587,218.00	\$1,000,000.00	10
NMI all 668281	Defense	AFRL	20-Dec-10 thru 30-Dec-15	\$5,247,129.00	\$30,000.00	15
RPA F#668749	Defense	AFRL	01-Jan-12 thru 14-Oct-16	\$4,999,833.00	\$7,500,000.00	30
RIIT (668333)	Defense	AFRL	20-Dec-10 thru 30-Dec-15	\$1,399,965.00		10
Other Area Contracts	Defense	AFRL		\$25,000,000.00		120
Other New AFRL BAA	Defense	AFRL	TBD	\$22,000,000.00		60
Other New AFRL BAA	Defense	AFRL	TBD	\$0.00	\$6,000,000.00	15
Other New AFRL BAA	Defense	AFRL	TBD	\$0.00	\$43,000,000.00	140
HMT (ATB Follow-on)	Defense	AFRL	15-Feb-15 thru 15-Feb-20	\$0.00	\$43,000,000.00	130
				\$67,133,994.00	\$100,530,000.00	575

- **This is all new business for the region.**
 - The Ohio based human performance awards increased nearly 50%.
- **Directly supported the recruitment, development, and retention of key talent in the region to support this human performance growth.**

Human Performance Related Job Creation with Wright Patterson AFB

- **Analyst Testbed (ATB) Effort**

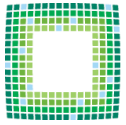
- New Effort Awarded in FY12 for \$5M
- Team includes: WSRI, 361 INT, Aptima, ATIC, Ball, Blackwater, BAH, CAMO, Lumir, OSU, Radiance, SAIC, SRA, RCS, UDRI

- **Human Machine Teaming (HMT) Follow-on ATB Effort**

- New AFRL/RH \$43M Contract. Proposal Ongoing
- Team includes: WSRI, 361 INT, Aptima, ATIC, Ball, Blackwater, BAH, CAMO, Lumir, OSU, Radiance, SAIC, SRA, Raytheon, RCS, Roth Cognition, SRA, TDKC, UDRI

- **Remotely Piloted Aircraft (RPA) Effort**

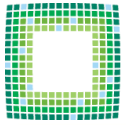
- New Effort Awarded in FY 12 for \$5M
- Team includes: WSRI, APTIMA, ARA, BAH, IHMC, IST, SAIC, Selectech, SOCHE



State Investment Summary

- State of Ohio through the Third Frontier Commission and Ohio General Assembly have awarded \$27M to Wright State University for:
 - Developing a new business model to expand research (AHEAD)
 - Workforce development
 - Job creation with Wright-Patterson Air Force Base
 - Tech transition and commercialization

- Breakout of \$27M of Funding
 - \$5M of Third Frontier Research and Development Capital Grant/Loan in FY12
 - Created Analyst Test Best to support AFRL Human Performance Assessments
 - Built the UAV Mobile Test Environment (MTE) for Human Sciences Research
 - Established research facilities and equipment to support Human Performance Research
 - \$3M of ODS in FY12/13 and FY14/15
 - Used for workforce development , commercialization, and UAS Test Center Support
 - \$8M of OBR in FY12/13 and FY14/15
 - Used for job creation and strategic hires to better support Wright Patterson AFB needs
 - Supporting tech transition and commercialization in the Human Performance area
 - Catalyst and fuel for the development of the AHEAD Business Model



The return on state investment to date and projected June 2015:

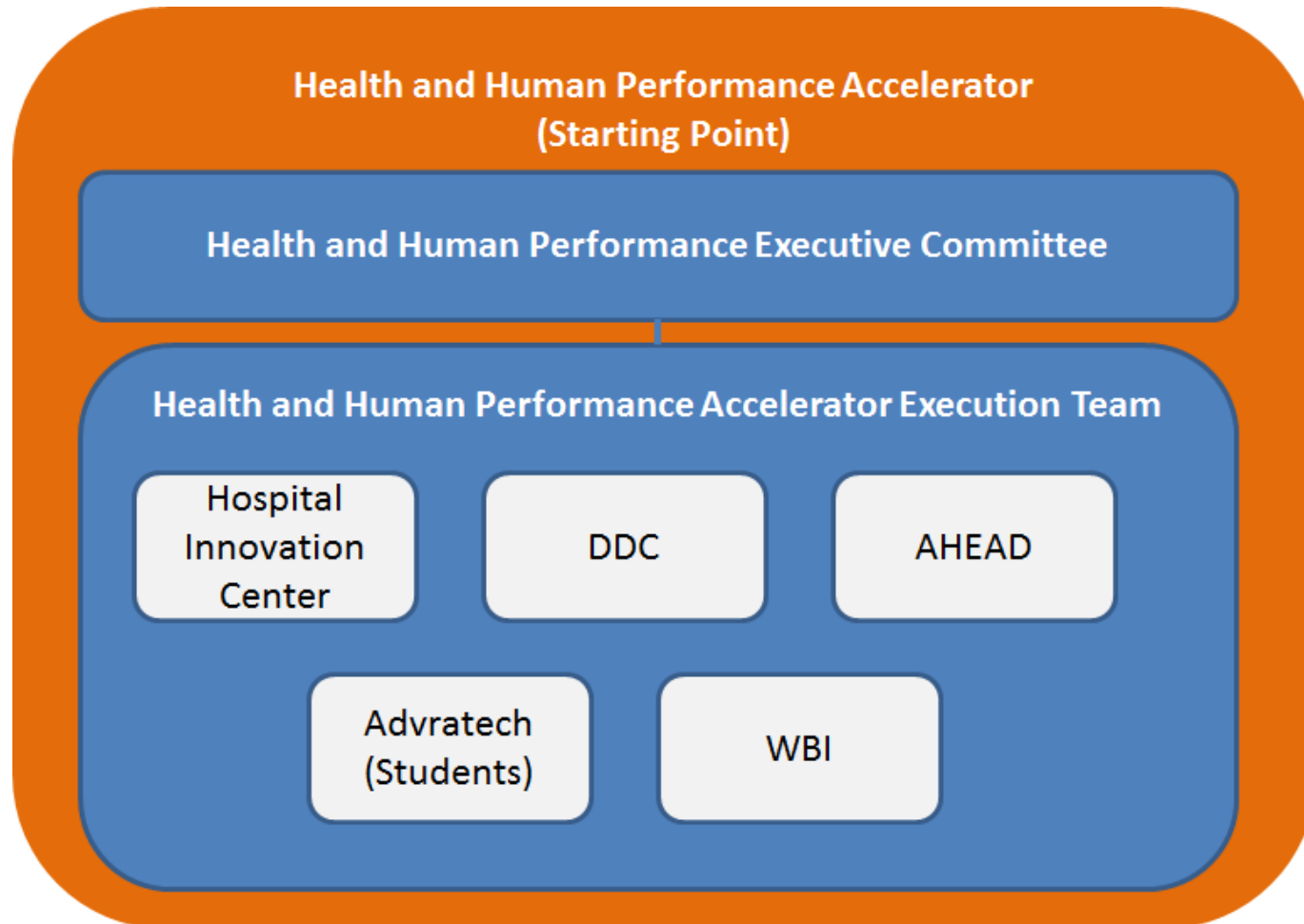
	<u>2010 - 2014</u>	<u>June, 2015</u>
▪ New Federal R&D Contracts to Ohio	\$67 million	\$167 million
▪ Est Private Sector Investment in Ohio	\$115 million	\$150 million
▪ New Jobs to Ohio	435	575
▪ Est Annual Payroll to Ohio	\$35.7 million	\$47.2 million

Activities are ongoing to expand this collaborative business model across other AFRL, LCMC, AFMC, and NASIC directorates and technology areas.

- Data Analytics, Unmanned Systems, Cyber, ISR, Sensors, Defense Intelligence, Materials and Manufacturing, Geospatial, and Aerospace Systems

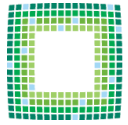
Tech Transition and Commercialization

Greater Dayton Area Hospital Association Led Example



Overview of Accelerator and Hospital Innovation Center

- ❑ GDAHA, AHEAD, The Entrepreneur Center and the Dayton Development Coalition are supporting the standup of a commercialization ecosystem and accelerator to support the transition of research from academic and government structures to commercial outcomes
- ❑ GDAHA will also establish the Hospital Innovation Center capability to identify problems and intellectual property which reside within the hospital system
 - ❑ Will operate inside the Accelerator construct
 - ❑ Role is focused on supporting the Hospitals and GDAHA



Develop Five Year Strategic Plan

Support for The Ohio Federal Military Jobs Commission

Scope of Work

- **Develop Ohio FM Jobs Commission (OFMJC) Organizational Structure and Five-Year Financial Plan**
- **Develop Ohio Research and Tech Transition Innovation Initiative**
- **Expand Small Business Federal Contracting**
- **Create Workforce Placement Center for Federal and Military Jobs**
- **Develop Federal Facility Retention and Expansion Plan**

First Commission Meeting Scheduled for Nov 14th
Final Report is Due March 31st, 2015

