

BioHealth Innovation Startup Assistance

Rich Bendis
President & CEO
BioHealth Innovation
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BioHealth Innovation is an Innovation Intermediary

BioHealth Innovation is a Central Maryland innovation intermediary that connects market relevant research assets to appropriate funding, management and global markets to facilitate the development of commercially viable biohealth products and companies.

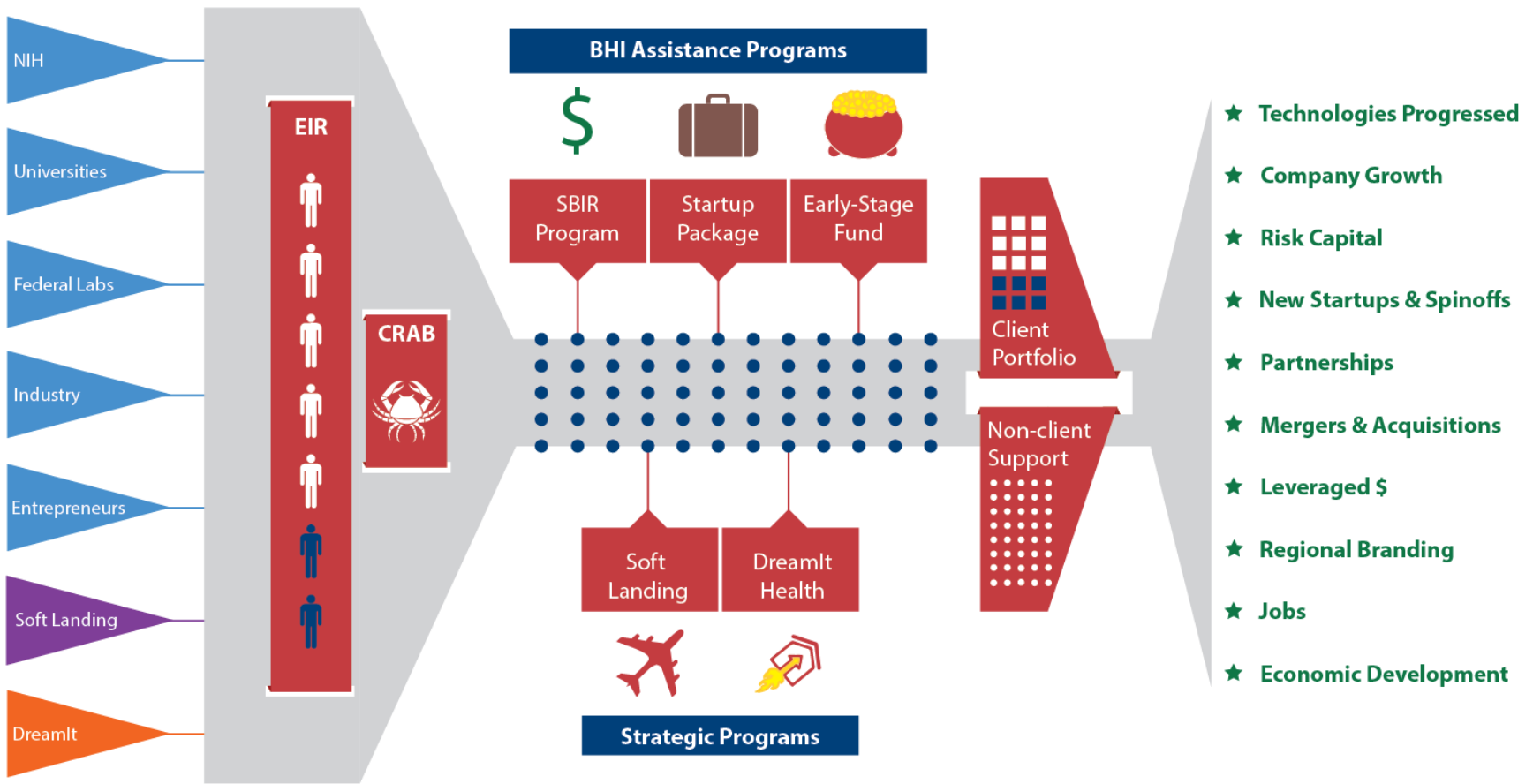


- Regionally-oriented
- Innovation accelerator
- Private-public partnership, 501(c)(3) nonprofit
- Market-driven, private sector-led and funded
- Neither a government initiative, nor a membership organization

SOURCES

BHI Program Structure

OUTCOMES



Financial Sponsors



BHI Entrepreneur-in-Residence Program

A team leader who combines scientific, financial/VC and entrepreneurial management experience to:

- Perform due diligence
- Develop biohealth project-focused companies

Proactively identifies and commercializes **market-relevant** intellectual properties from:

- Federal Labs
- Universities
- Private Sector



Todd Chappell
NIH-OTT



Ken Malone
University System of Maryland



Ram Aiyar
NHLBI



Richard Moore
BD Diagnostics

2013 Status



114 NIH
Technology Reviews
Conducted

63 Industry

4

EIRs



1

CFLD
Chinese-American
EIR



9

Current Clients

2

Pending Clients

4

Potential New
Clients

Future

- Add 2 EIRs
- Create 5 spinouts or tech placements
- Develop education programs

BHI Client Companies

BeneVir

- Developing a therapeutic platform that can be adapted to target a wide variety of cancers.

MIMETAS
the organ-on-a-chip company

- Developing and marketing Organ-on-a-Chip solutions for the pharmaceutical industry.

Mehr Medical

- Developing devices for cardiovascular procedures that will solve high unmet needs in the transcatheter valve replacement space.

MockV

- Developing novel viral clearance kits to be utilized during process development bio therapeutics.

 **N5 Sensors, Inc.**
Smart Sensors for a Safer World

- Developing sensors that can detect harmful chemicals mixed in air in very small quantities, such as industrial chemicals, and other pollutants.

 **PERCEPTIVE
NAVIGATION**

- Developing medical devices related to image-guided, minimally-invasive niche markets.

 **VLP Therapeutics**

- Developing a platform vaccine like particle technology that has the potential to be used for various diseases including cancer.

 **speed**
BioSystems

- Recently licensed a monoclonal antibody targeting ROR1 from the NIH. ROR1 is an emerging target that may be relevant for triple negative breast cancer (TNBC) and other solid tumors.

 **Strand
Life Sciences**
Algorithms for Life

- India-based molecular information company with multiple powerful bioinformatics platforms.

BHI Startup Package

Corporate Legal



Intellectual Property



Accounting



Laboratory Space



Incubation



Banking

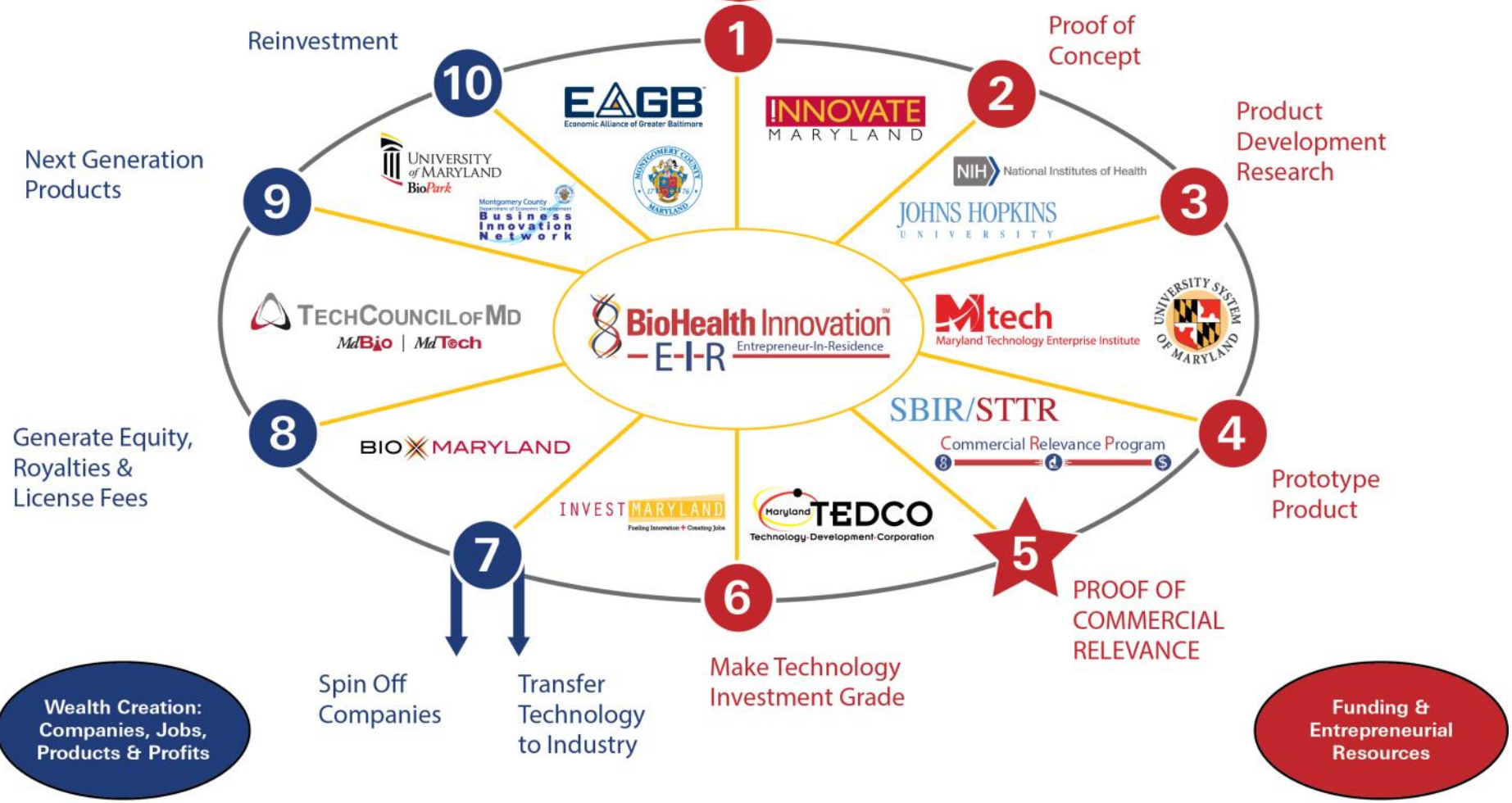


Grant Consulting



BHI Commercialization Model

Inventions patented through Universities, Federal Labs, Private R&D, and Basic Research



BHI Innovation Capital Map

Pre-Proof of Concept \$25,000 - \$1,500,000 (over 5 yrs)	Translational Research/ Proof of Concept \$15,000 - \$750,000 (over 3 yrs)	Proof of Commercial Relevance/Pre-Seed \$3,000 - \$500,000	Seed/ Start-Up \$50,000 - \$1,500,000	Early Stage \$200,000 - \$2,000,000	Later Stage \$2,000,000+
<ul style="list-style-type: none"> NIH R01 NIH R03 NIH R21 	<ul style="list-style-type: none"> SBIR/STTR Grant Phase 1 NCATS Cures Acceleration Network (CAN) Maryland Stem Cell Research Fund (MSCRF) - Various TEDCO Technology Validation Program - Proof of Concept TEDCO Maryland Innovation Initiative - Phase 1 JHU - Coulter Translational Research Partnership 	<ul style="list-style-type: none"> Maryland Industrial Partnerships (MIPS @ UMD) TEDCO Maryland Innovation Initiative - Phase 2 Maryland Stem Cell Research Fund (MSCRF) - Pre-Clinical TEDCO Technology Validation Program - Market Assessment ★ BHI SBIR/STTR Federal Funding Assistance Program 	<ul style="list-style-type: none"> Dingman Center Angels (UMD) BioMaryland Biotechnology Dev. Award - Translational Res. TEDCO Patent Assistance Program TEDCO Technology Commercialization Fund TEDCO Maryland Innovation Initiative - Phase 3 SBIR/STTR Phase 2 ★ BHI Commercial Relevance Fund(CRF) 	<ul style="list-style-type: none"> Propel Baltimore Fund TEDCO Veterans' Opportunity Fund Invest Maryland: Maryland Venture Fund BioMaryland Biotechnology Dev. Award - Commercialization Maryland Health Care Product Development Corporation Abell Venture Fund MMG Ventures LLP TDF 	<ul style="list-style-type: none"> Maryland Venture Fund Authority ABS Capital Partners Greenspring Associates Novak Biddle Venture Partners Sterling Venture Partners Harbert Venture Partners JMI Equity New Enterprise Associates

Associations

Association of University Resource Parks (AURP)	Angel Capital Association (ACA)	Mid-Atlantic Venture Association (MAVA)	National Venture Capital Association (NVCA)
Association of University Technology Managers (AUTM)			
Licensing Executive Society (LES)			

Funding Type Key

- Academic
- State of Maryland
- ★ BioHealth Innovation, Inc.
- Federal
- Economic Development
- Private Capital

Tax Credits

- Maryland Biotechnology Investor Tax Credit
- Montgomery County Biotechnology Investor Tax Credit

BHI Federal Funding Assistance



Value Chain of Assistance

- BioHealth Technology**
- Therapeutics
 - Devices
 - Diagnostics
 - Tools
 - Bioinformatics
 - Health IT



Funding Agencies

NSF
National Science Foundation

NIH
National Institutes of Health

NATIONAL CANCER INSTITUTE

NIH
National Center for Advancing Translational Sciences

DEFENSE THERAPEUTIC REDUCTION ACTS
UNITED STATES OF AMERICA

EMERGING CHEMICAL BIOLOGICAL CAPABILITIES
U.S. ARMY MEDICAL RESEARCH INSTITUTE

BARD A
BIOLOGICAL ADVANCED RESEARCH AND DEVELOPMENT ACTIVITY

DARPA
Defense Advanced Research Projects Agency

BILL & MELINDA GATES foundation

USAID
FROM THE AMERICAN PEOPLE

USAMRIID
United States Army Medical Research Institute of Infectious Diseases
BioDefense solutions to protect our nation

NIH National Heart, Lung, and Blood Institute

CDMRP
Congressional Directed Medical Research Programs
Department of Defense

















- A Health IT Accelerator is an intensive 16 week program that admits top-recruited companies and entrepreneurs, provides a curriculum and network of experienced mentors in business, marketing and product development in the Health IT arena to “accelerate” top companies.
- Retain promising high growth HIT entrepreneurs in MD
- **Partners:**

- ❖ BioHealth Innovation, Inc
- ❖ Johns Hopkins University
- ❖ DreamIt Ventures
- ❖ Economic Alliance of Greater Baltimore
- ❖ Northrop Grumman
- ❖ Kaiser Permanente
- ❖ DBED

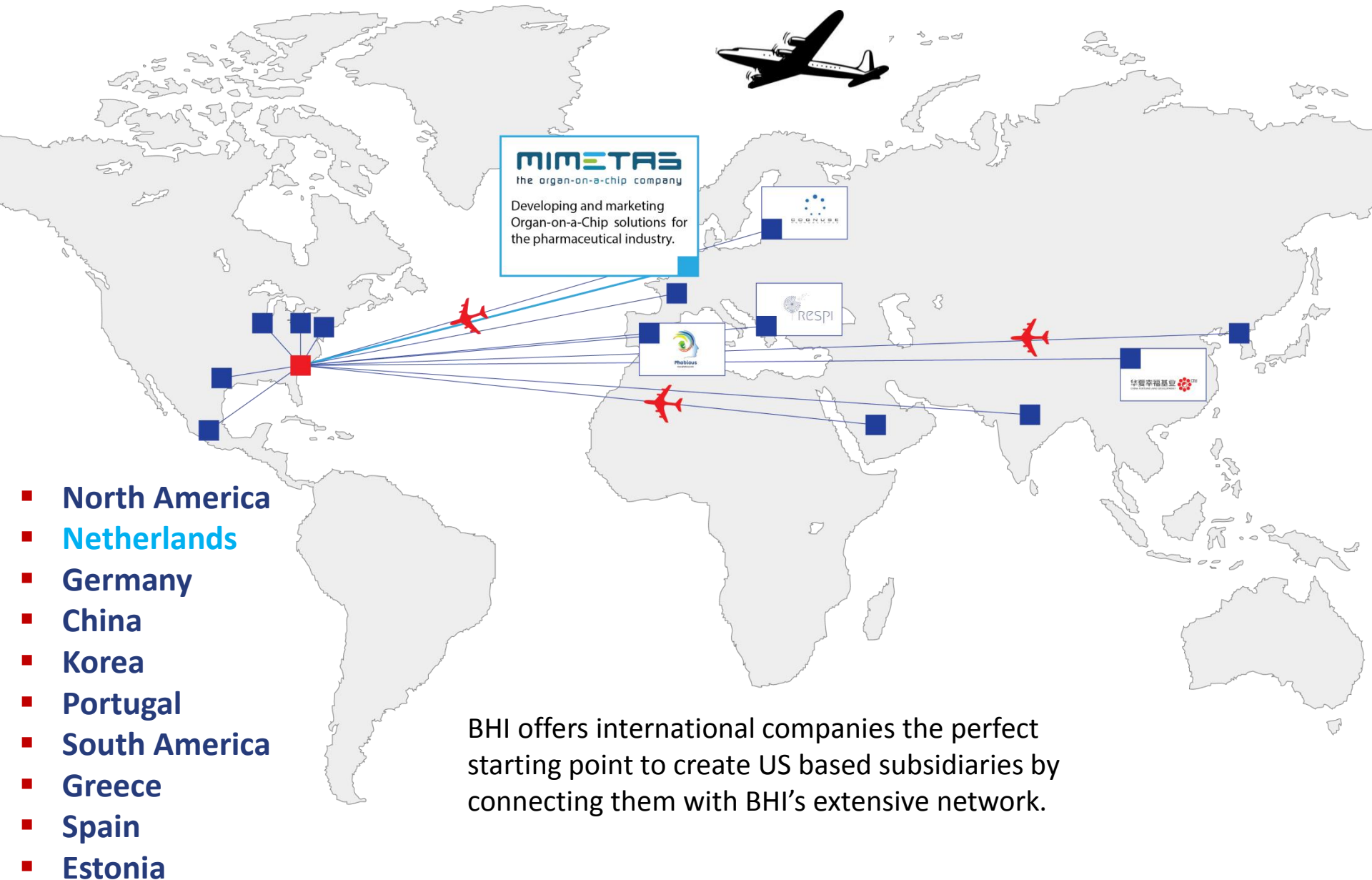


DreamIt Accelerator Companies

JHU
Affiliated

	<ul style="list-style-type: none"> ● Wearable biometric devices 	<p>Baltimore, MD</p> 
	<ul style="list-style-type: none"> ● Clinical Decision Support 	<p>Baltimore, MD</p> 
	<ul style="list-style-type: none"> ● Mobile Cognitive Rehabilitation 	<p>Talinn, Estonia</p>
	<ul style="list-style-type: none"> ● Mobile Information Platform 	<p>Baltimore, MD</p> 
	<ul style="list-style-type: none"> ● Smart Administrative Workflows 	<p>Baltimore, MD</p> 
	<ul style="list-style-type: none"> ● Augmented Reality Treatment 	<p>Athens, Greece</p>
	<ul style="list-style-type: none"> ● Inpatient Care Collaboration 	<p>Pittsburgh, PA</p>
	<ul style="list-style-type: none"> ● Augmented Reality Treatment 	<p>Barcelona, Spain</p>
	<ul style="list-style-type: none"> ● Digital Workflow Management 	<p>Baltimore, MD</p> 

BHI International Soft Landing



Contact

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