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# Research to Application through Multi-Sector Partnerships

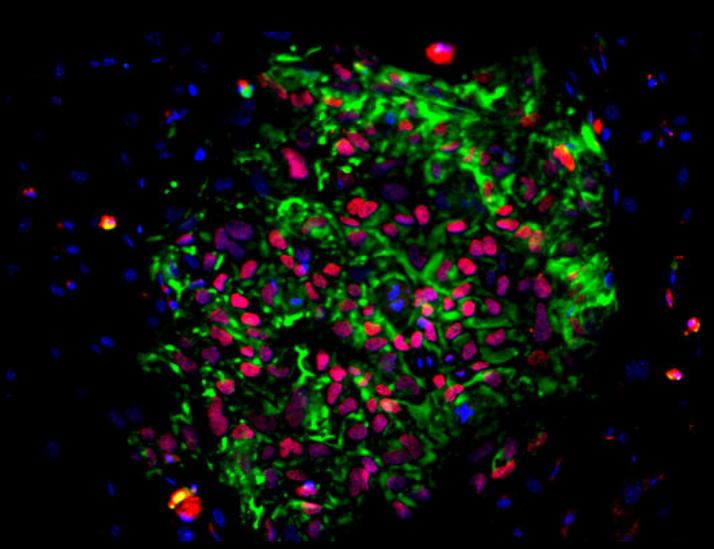
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**Syril Pettit, MEM  
Executive Director  
HESI**

[www.hesiglobal.org](http://www.hesiglobal.org)

**NASA NHHPC  
*Accelerating Innovation  
Across Sectors Conference*  
November 7 2013  
Washington, DC**



# Innovation for Human & Environmental Health





It is difficult to find a black  
cat in a dark room...

It is difficult to find a black  
cat in a dark room...

Especially if there is no cat.

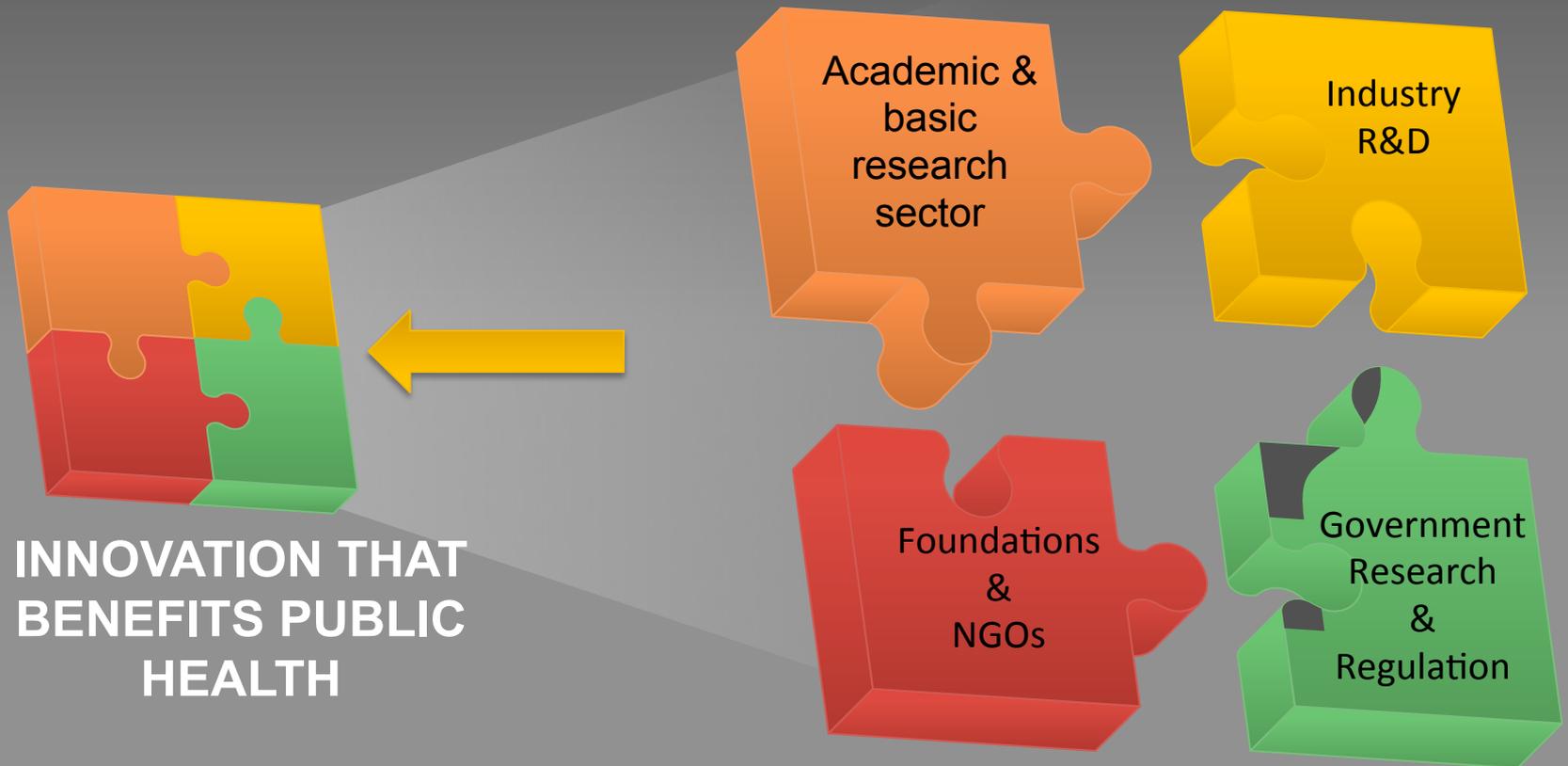
Supporting Impactful Innovation

# Flashlights & Focal Points





# The HESI Model: Bridging Research to Application



# HESI: Growing Innovation

Safe and  
Effective  
Medicines

Environmental  
Quality and  
Sustainability

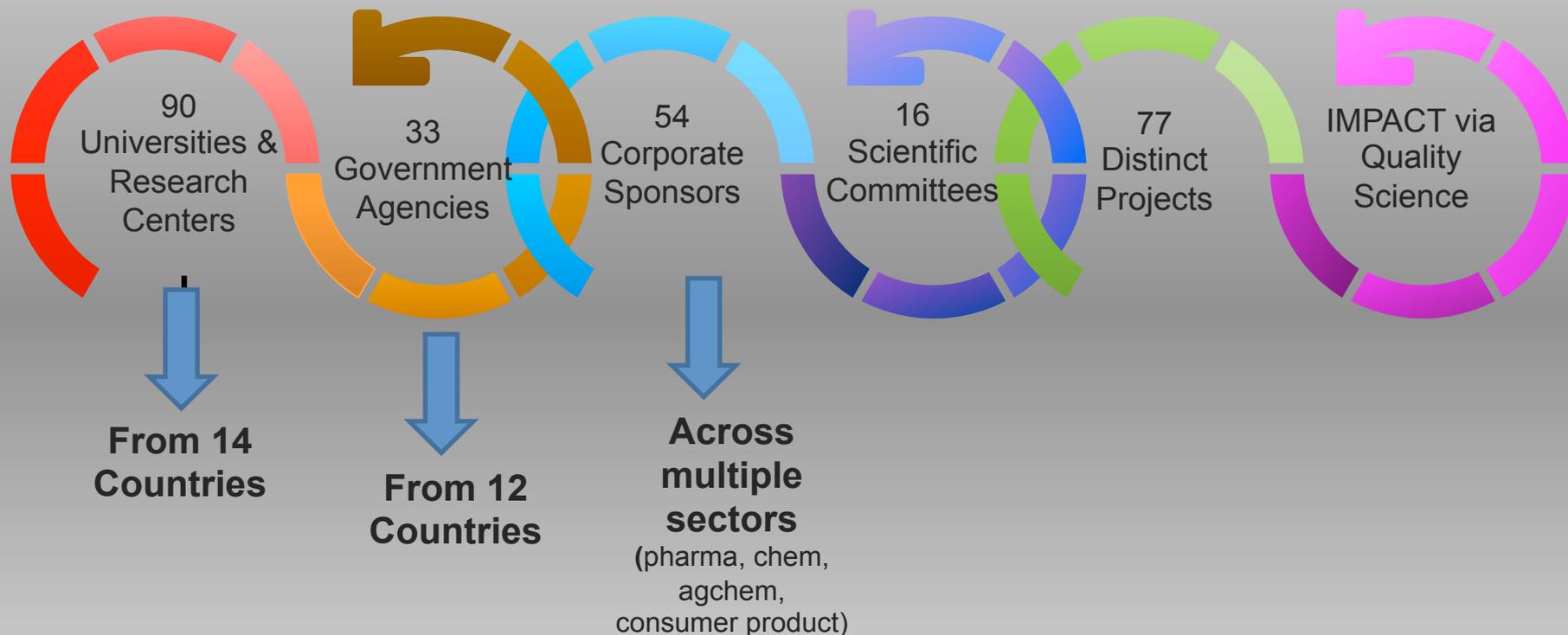
Accurate &  
Efficient  
Risk  
Assessment

Food Safety

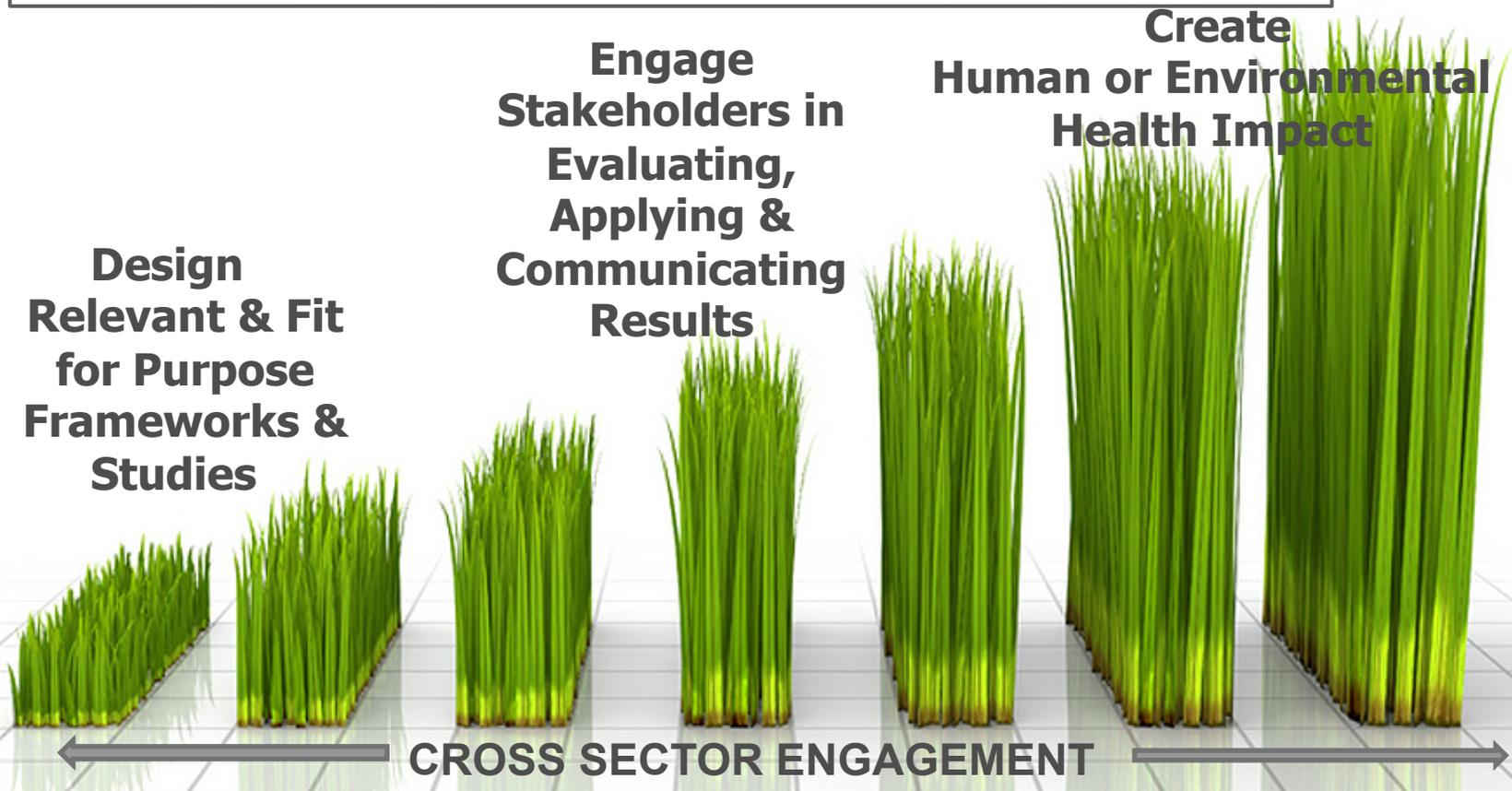




# HESI: Health and Environmental Sciences Institute



**FIRST: Defining critical health or environmental issues.**  
*then.....*



**HESI: Innovation from Research to Application**

# JULY 1992

**The Seattle Times**  
Winner of Nine Pulitzer Prizes

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Wednesday, July 8, 1992 - Page updated at 12:00 AM

[E-mail article](#)  [Print](#)

## Seldane Risk Reported -- Fda Warns About Popular Antihistamine

By [Rita Rubin](#)

*Times News Services: Dallas Morning News*

The U.S. Food and Drug Administration warned yesterday that Seldane, the most widely prescribed antihistamine, can cause life-threatening heartbeat irregularities in a small number of patients.

The irregularities occur when excessive levels of Seldane build up in patients' blood, according to the FDA. Patients at risk include those who take more than the recommended two tablets a day or those who use Seldane with certain other drugs.

Those drugs are Nizoral - an anti-fungal medication commonly used by AIDS patients - and the antibiotic erythromycin. Nizoral and erythromycin appear to interfere with the body's ability to utilize Seldane, the FDA said.

"Use of Seldane together with ketoconazole (the generic name for Nizoral) and erythromycin must be

# JULY 1992

The Seattle Times

Winner of Nine Pu

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Wednesday, July 8, 1

E-mail article

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By Rita Rubin  
Times News Servic

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antihistamine, ca

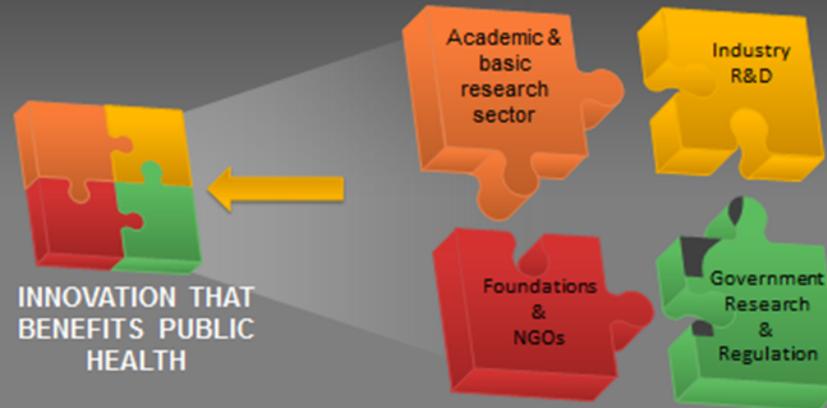
The irregularities

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### The HESI Model: Bridging Research to Application



s | Travel | Opinion

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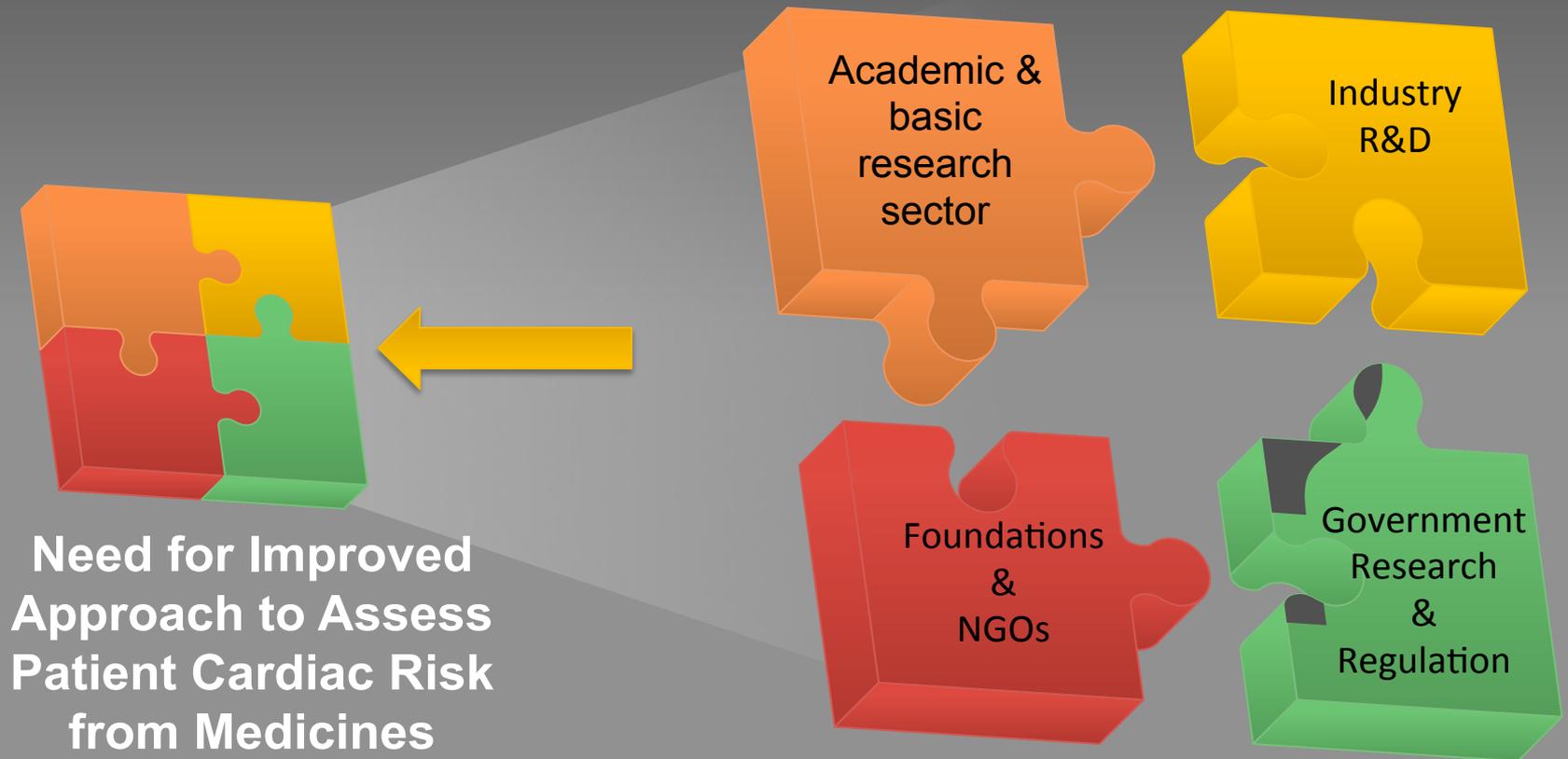
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According to the



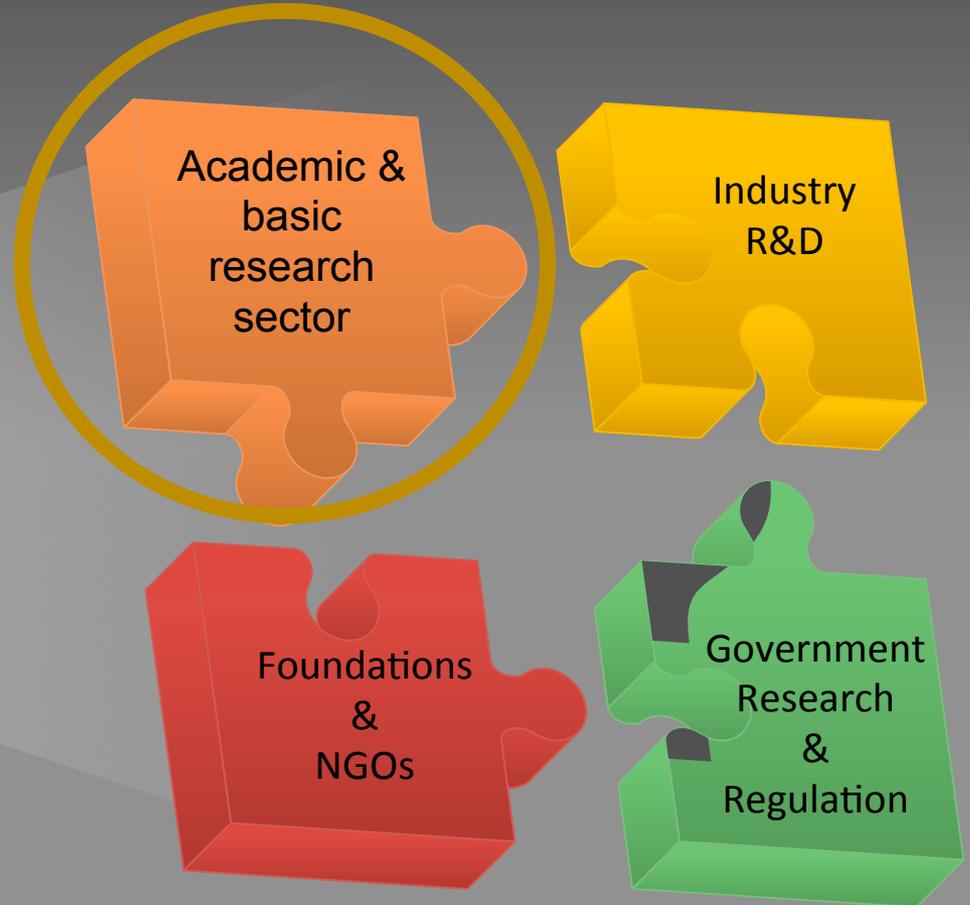
# The HESI Model: Bridging Research to Application





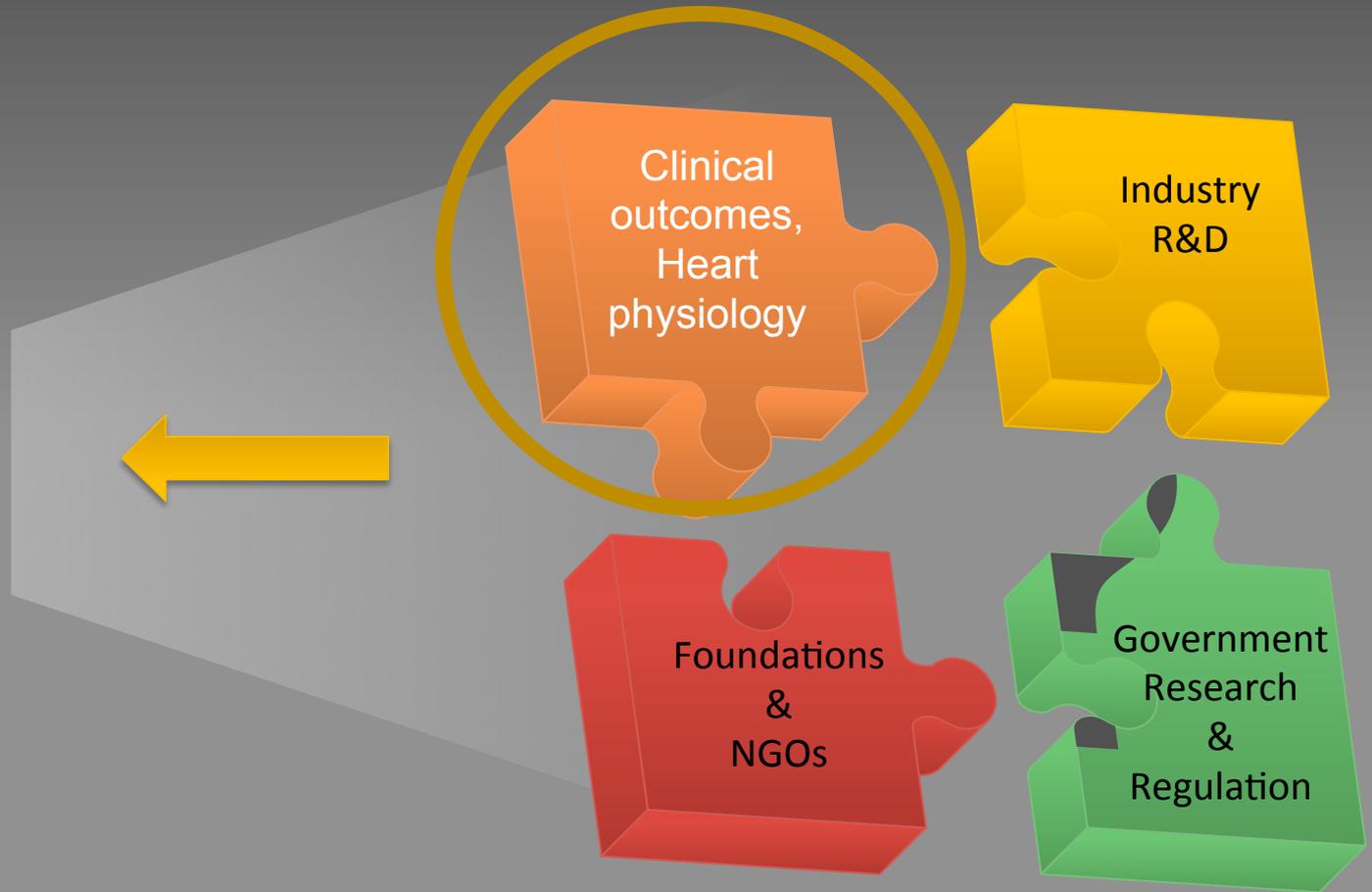
# The HESI Model: Bridging Research to Application

**Need for  
Improved  
Approach to  
Assess  
Patient  
Cardiac Risk  
from  
Medicines**



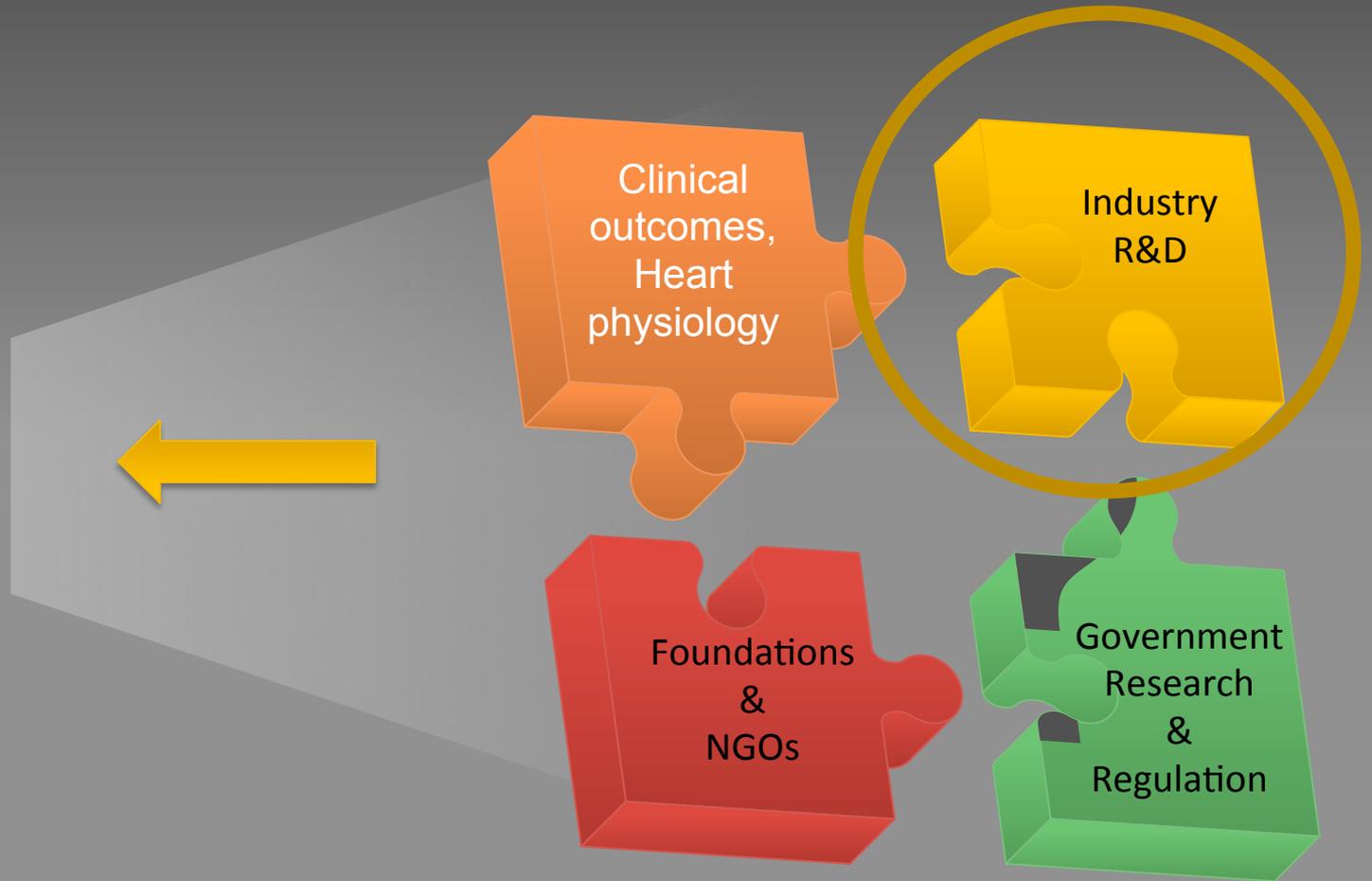


# The HESI Model: Bridging Research to Application



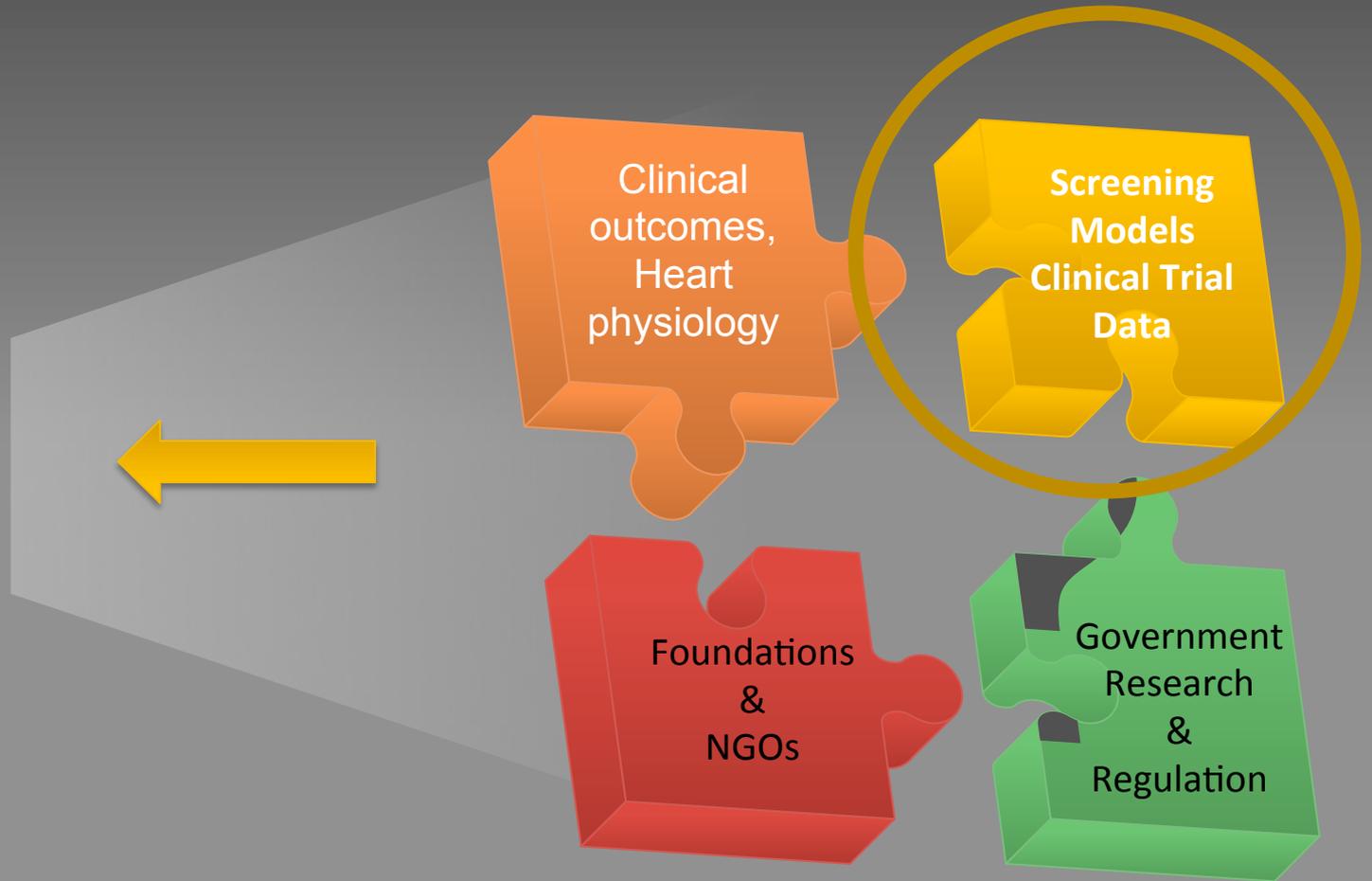


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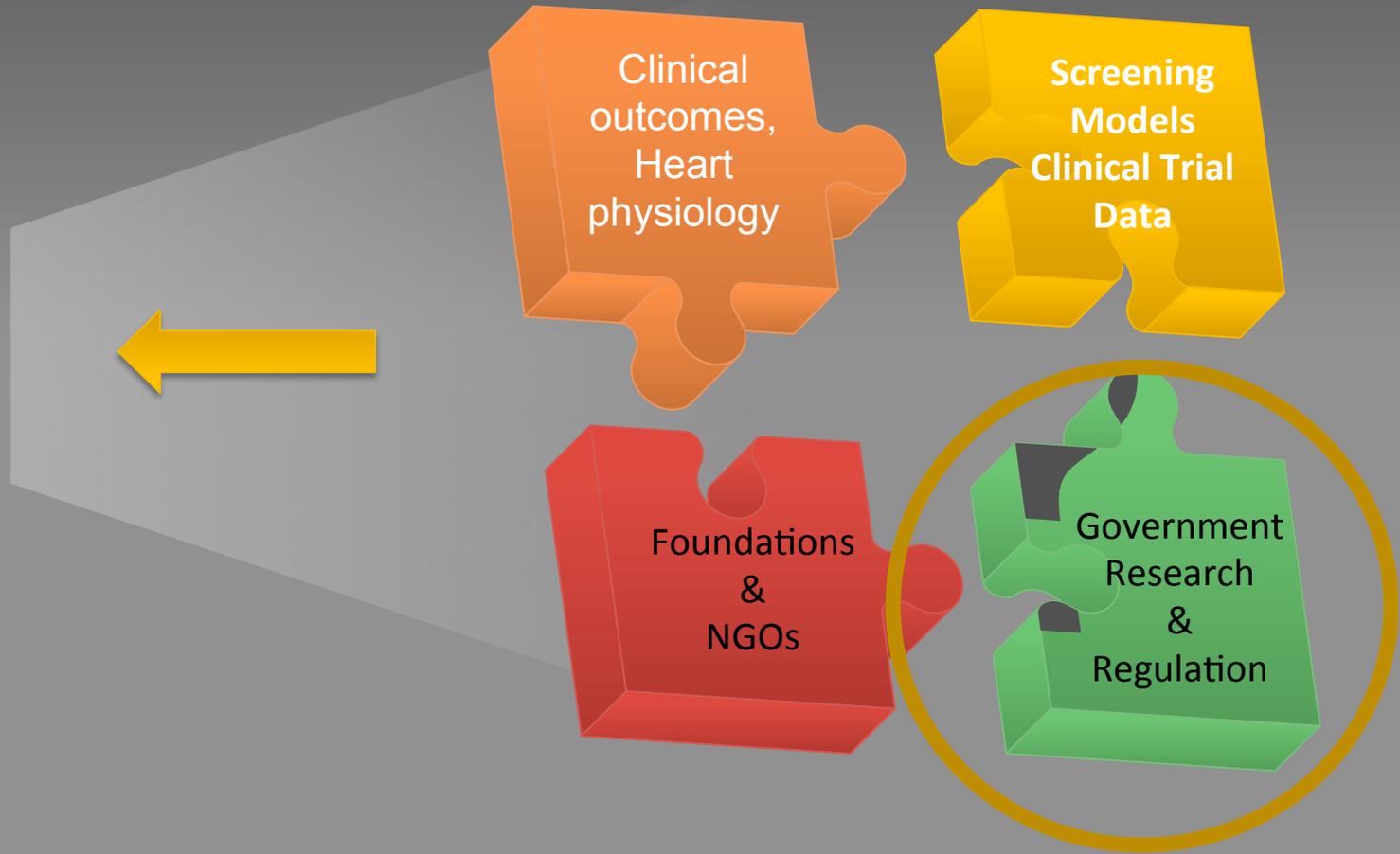


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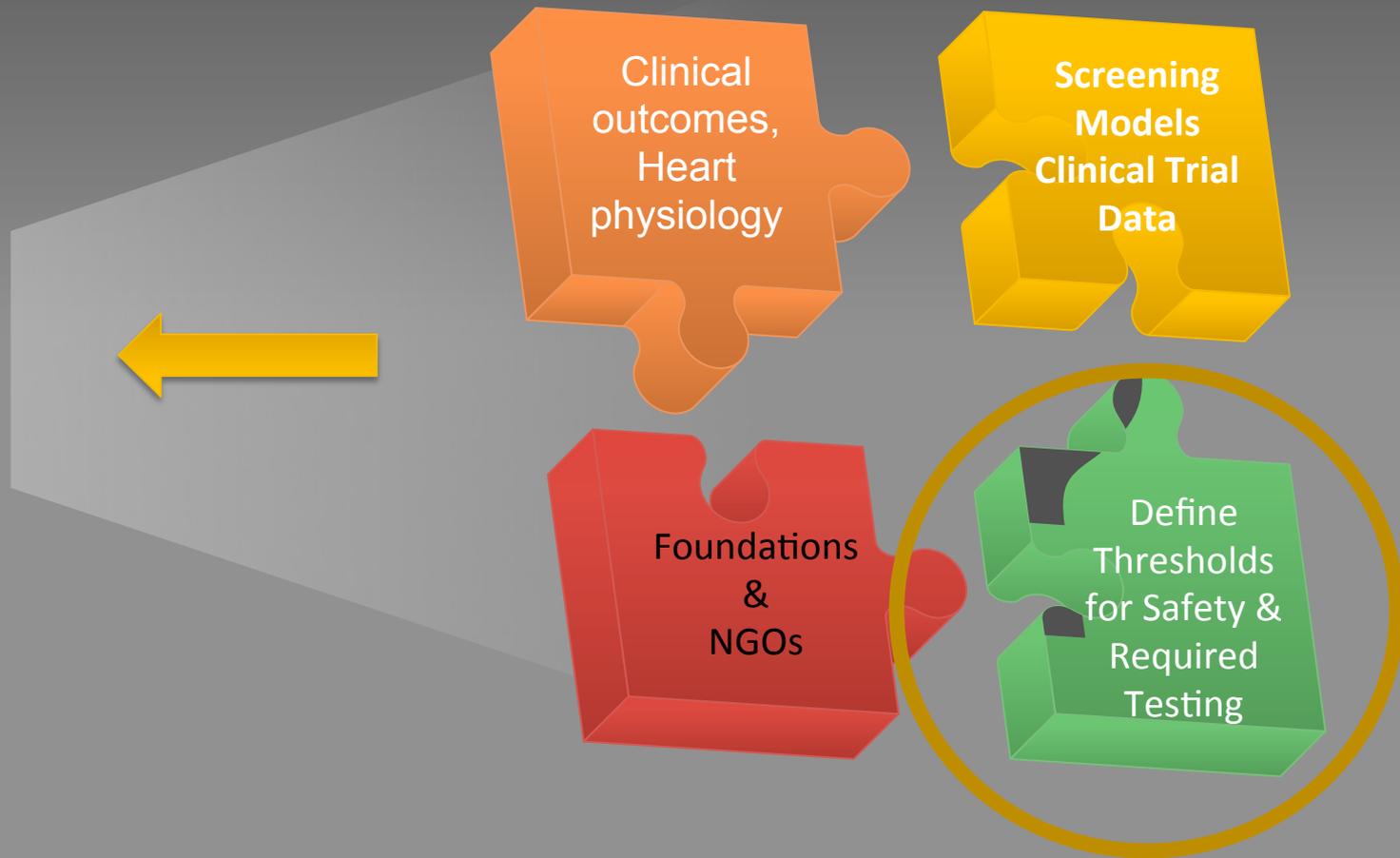


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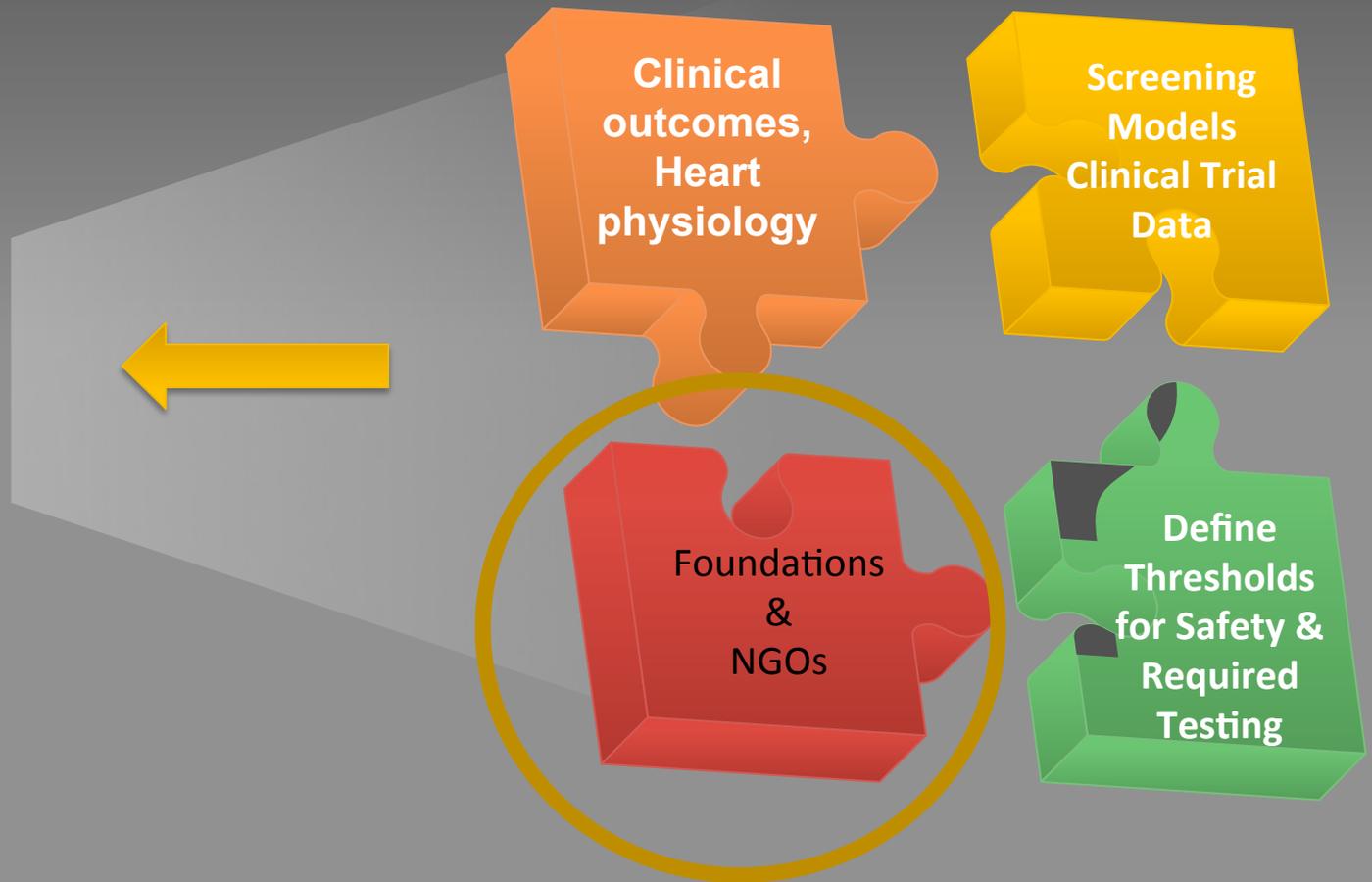


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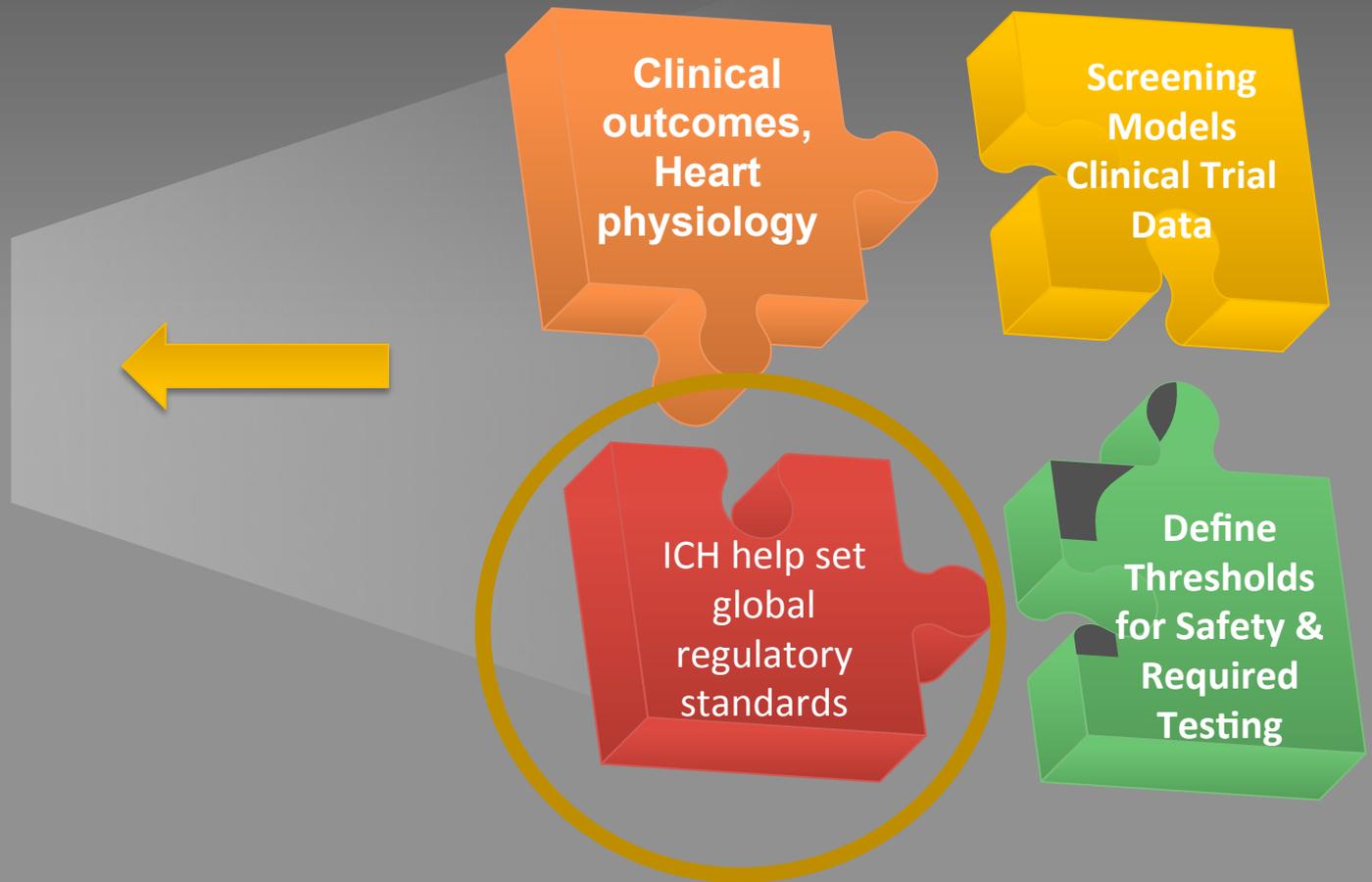


# The HESI Model: Bridging Research to Application





# The HESI Model: Bridging Research to Application





# The HESI Model: Bridging Research to Application

Right Experts,  
Across Sectors  
& Disciplines

Novel Data  
Generation

Building Best  
Practice in  
Public Domain

Consensus on  
Fit for Purpose  
Application



Clinical  
outcomes,  
Heart  
physiology

Screening  
Models  
Clinical Trial  
Data

ICH help set  
global  
regulatory  
standards

Define  
Thresholds  
for Safety &  
Required  
Testing



# The HESI Model: Bridging Research to Application

Novel Approach to  
Assessing Risk for  
Cardiac Arrhythmia  
(TdP)



Clinical  
outcomes,  
Heart  
physiology

Screening  
Models  
Clinical Trial  
Data

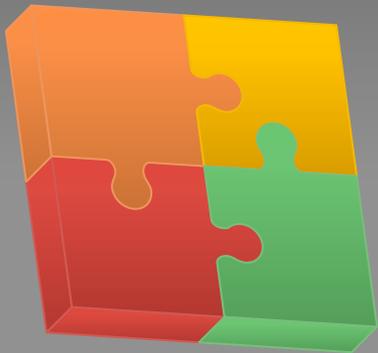
ICH help set  
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Define  
Thresholds  
for Safety &  
Required  
Testing

Now the  
standard...  
TdP no longer a  
public health  
challenge



# The HESI Model: Bridging Research to Application



**Innovation  
Continues...**



**NEW**  
Clinical  
outcomes,  
Heart  
physiology

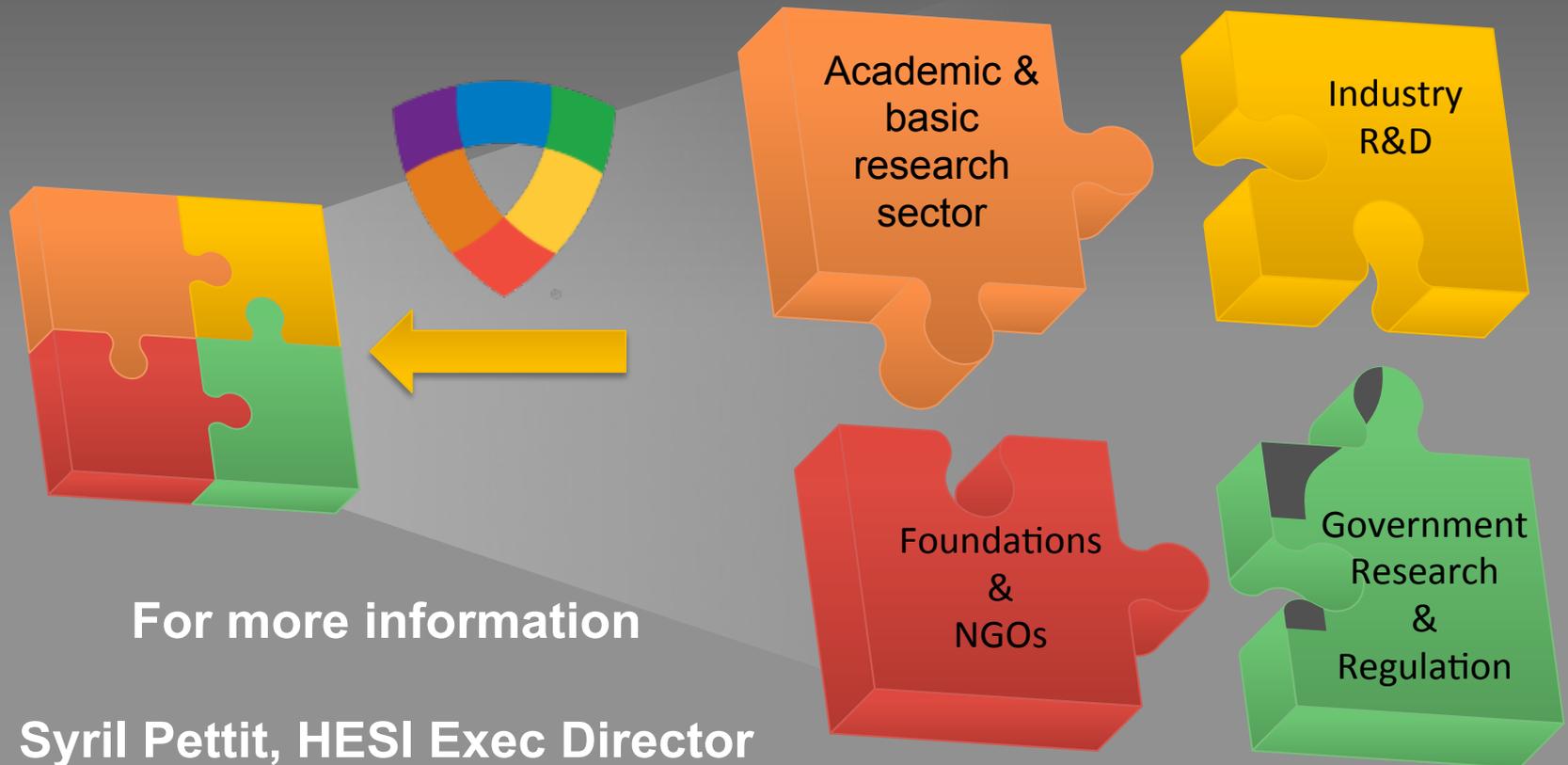
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# The HESI Model: Bridging Research to Application



For more information

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[www.hesiglobal.org](http://www.hesiglobal.org)