

# ASAT

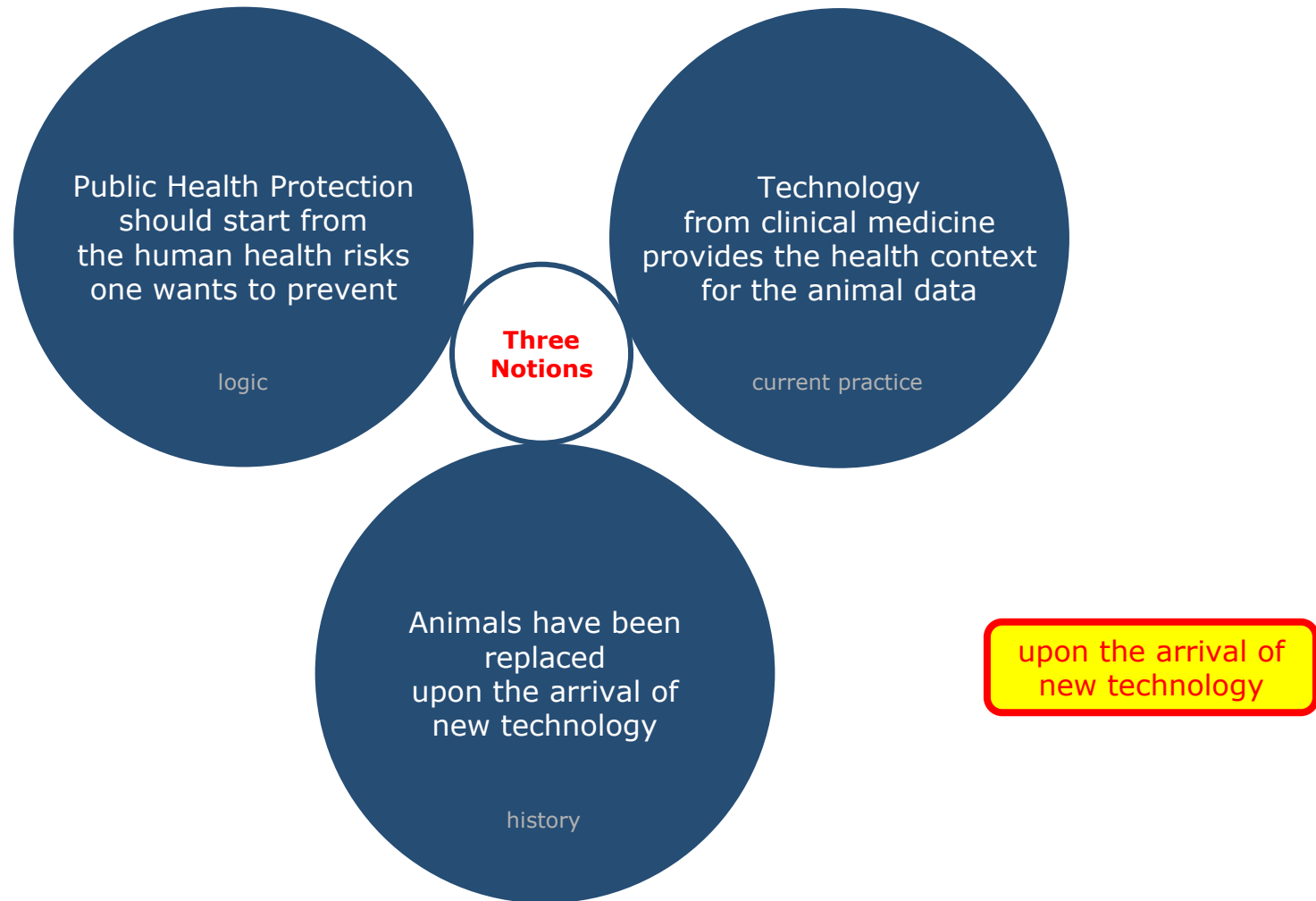
Assuring Safety  
without  
Animal Testing

**Bart Sangster**  
Chair

# This presentation

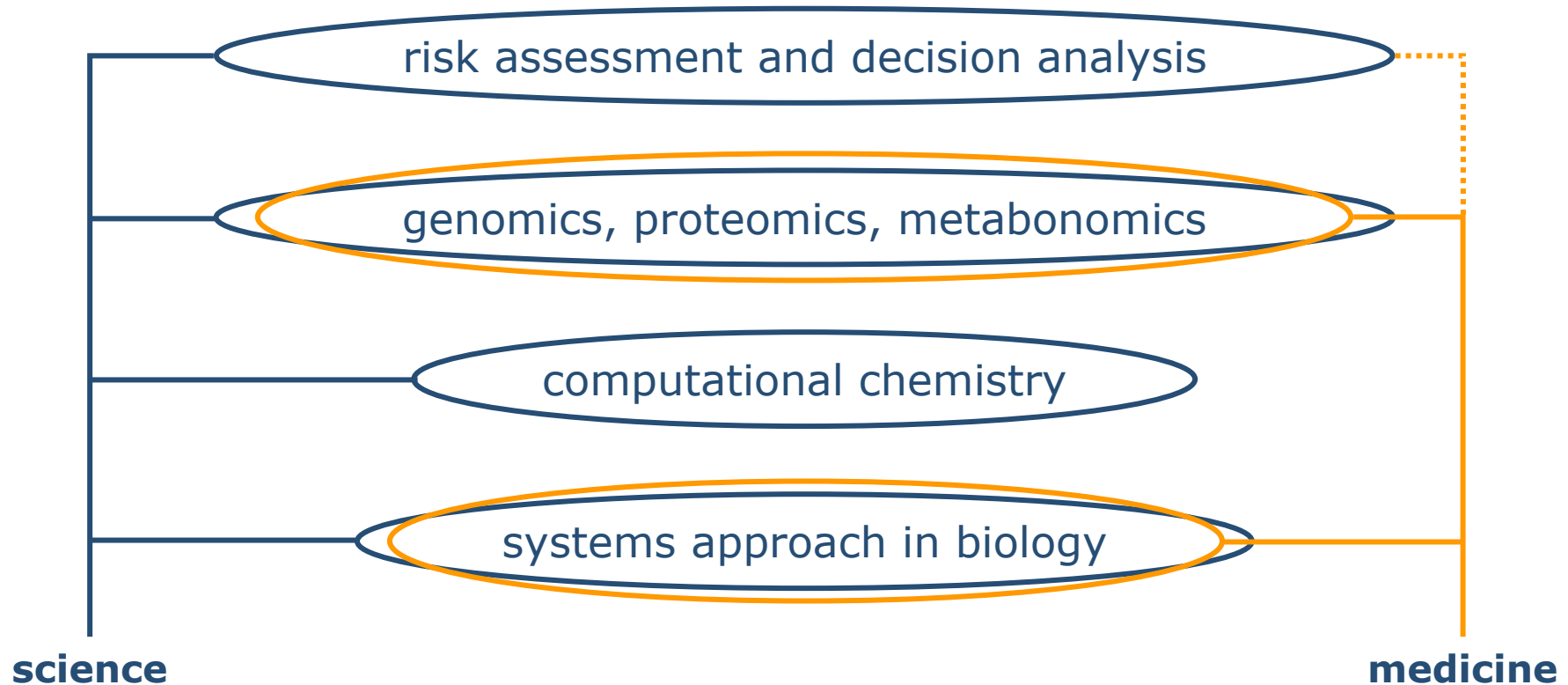
- Concept
- Development
- Application
- Perspective

# Origin of ASAT-concept

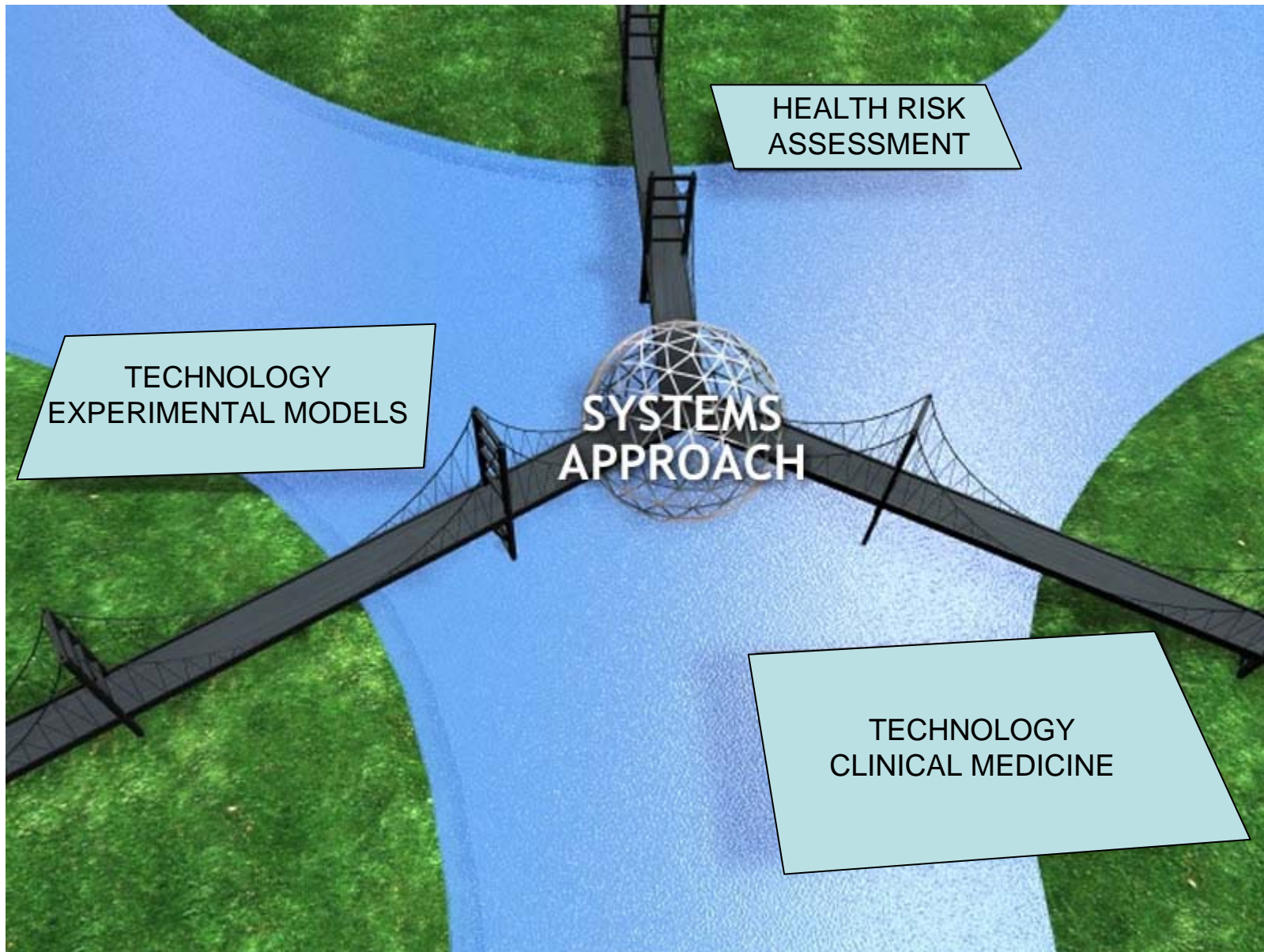


## Building the bridge

# Arriving New Technology

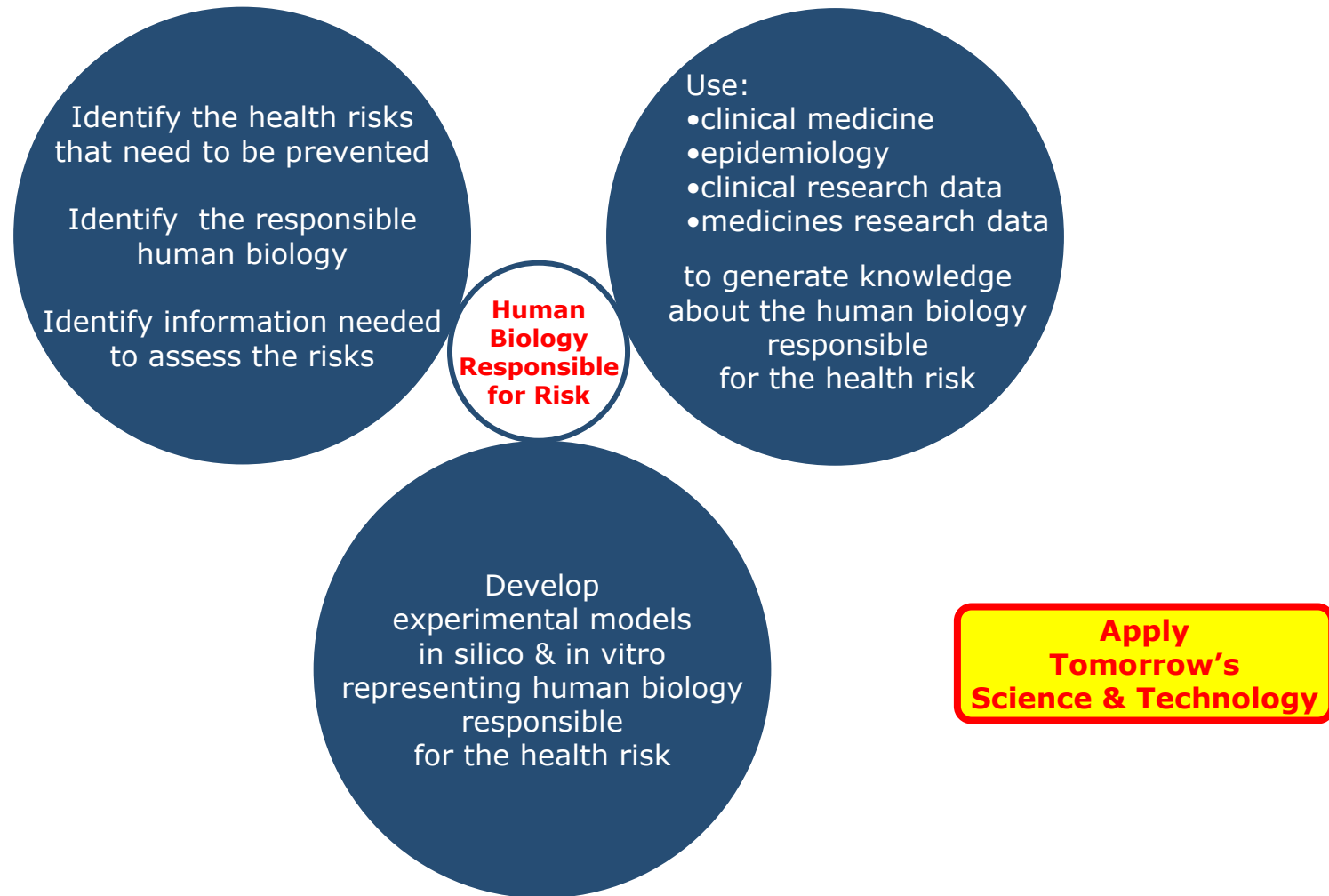


## Building the bridge



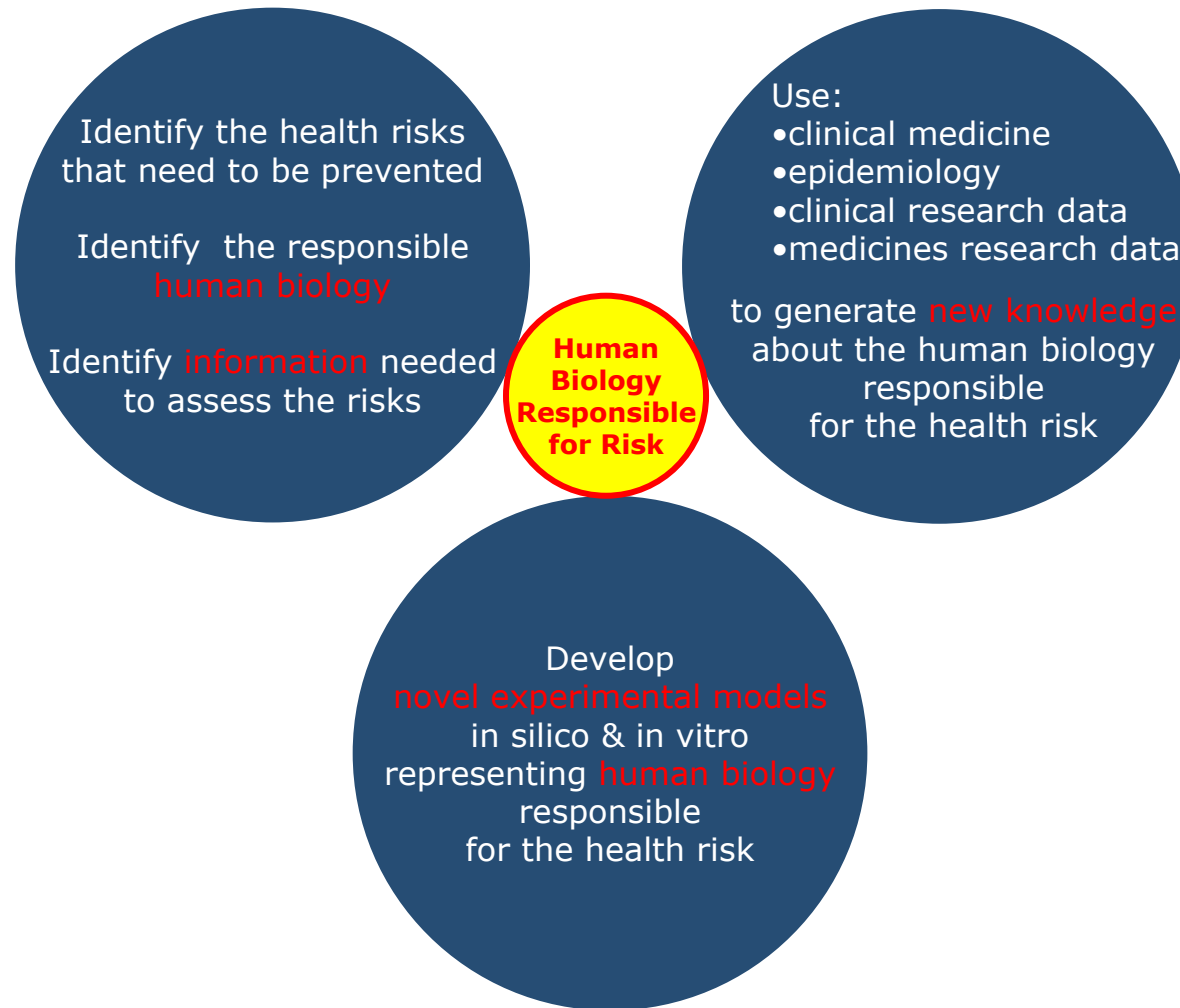
## Building the bridge

# ASAT-concept in a nutshell



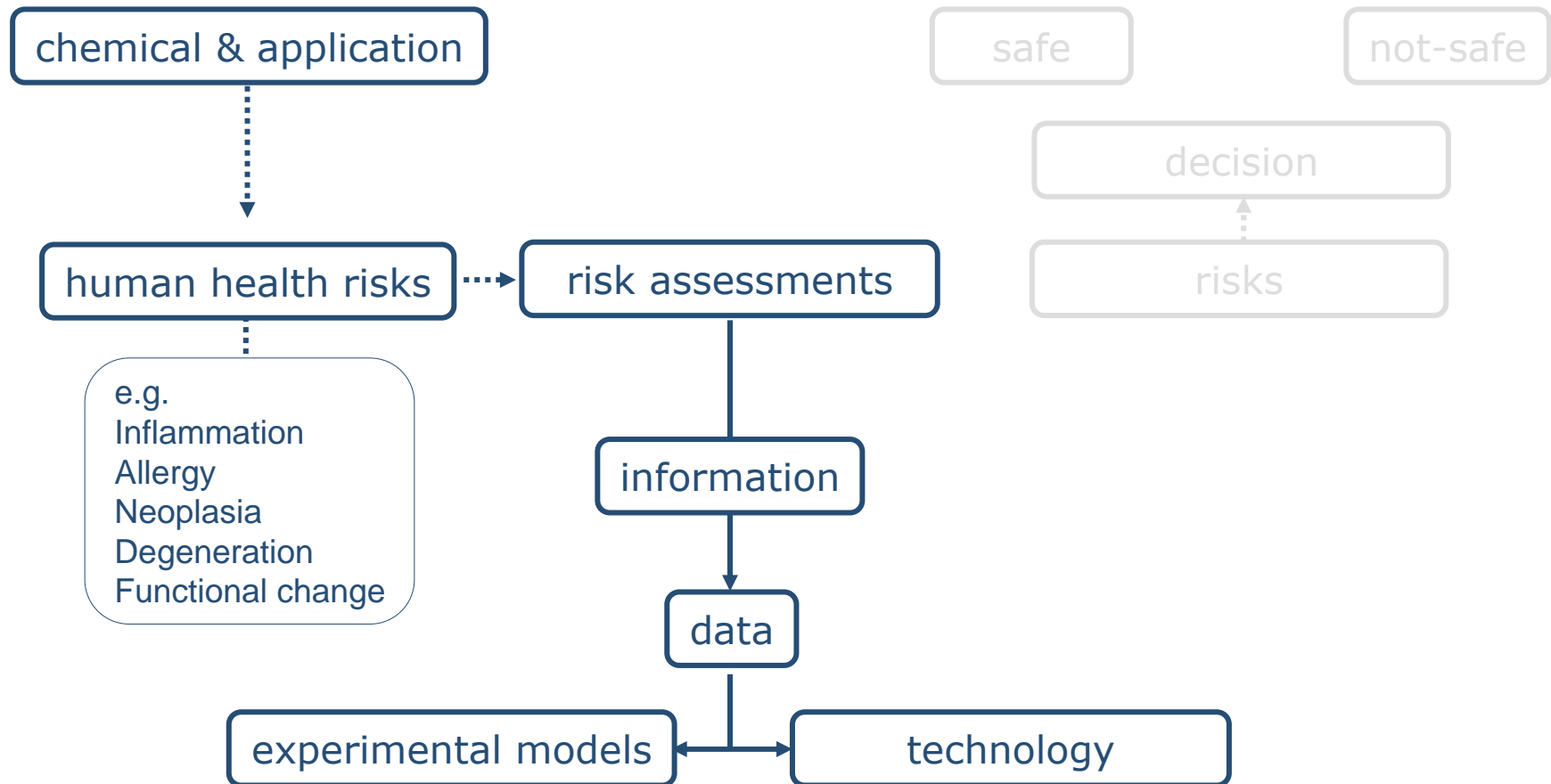
## Building the bridge

# ASAT-concept in a nutshell



## Building the bridge

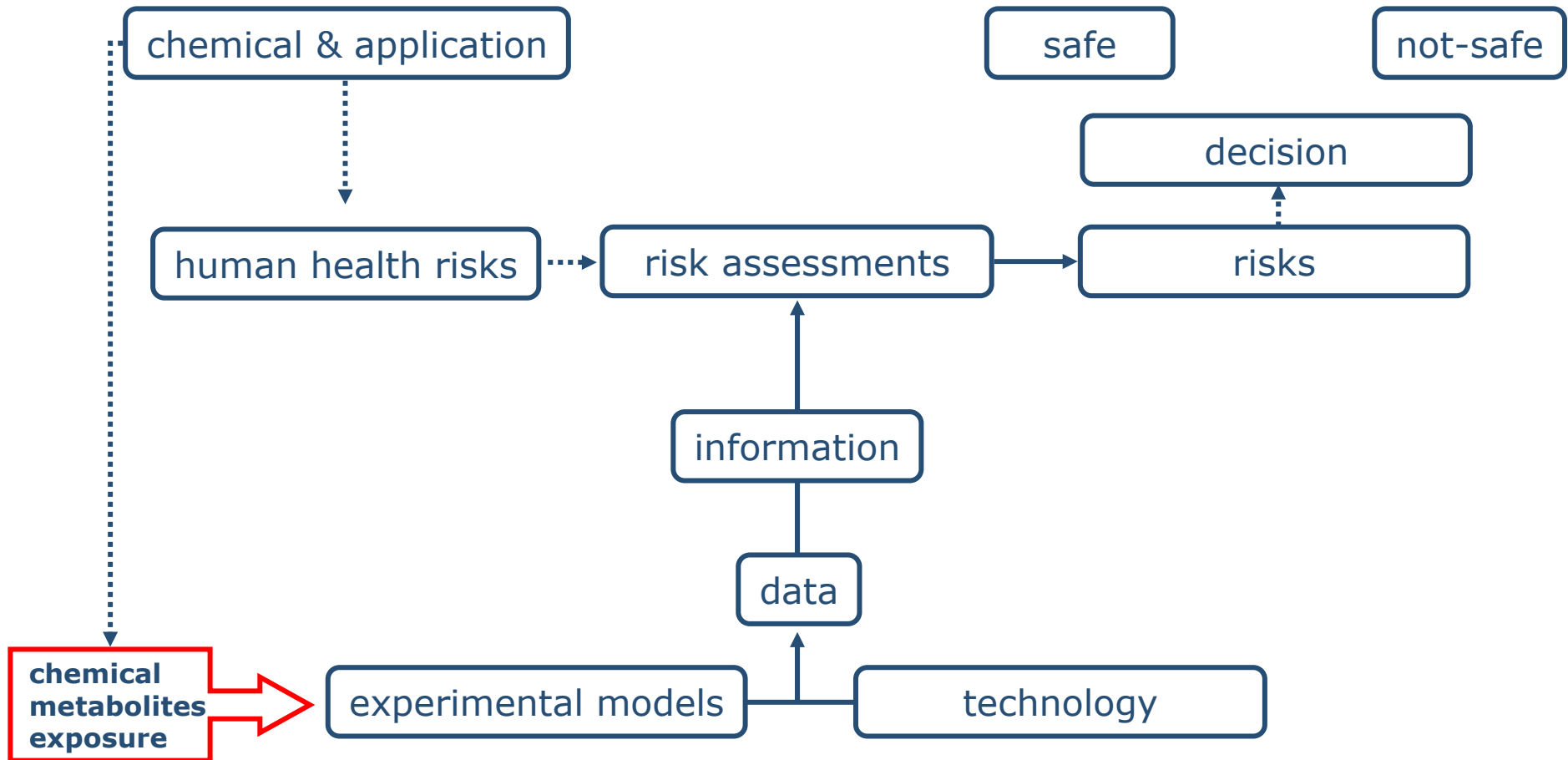
# ASAT development





## Using the bridge

# Application in a nutshell



# History

- 2003 concept developed
- 2004 concept published
- Unilever has invested € 3 mio p.a. since
  - Supports EPAA
  - Supports Colipa/EU fund launched this summer
- ASAT-Initiative
  - Work shops 2008 and report
  - [www.ASAT-Initiative.eu](http://www.ASAT-Initiative.eu)
- Netherlands Government
  - October 2008-2009 ASAT Innovation Programme
  - € 1,2 mio one off
  - What next decision is pending

# ASAT-Foundation

- Founded Oct 2008:
  - Independent, neutral and science based
  - Charity not for profit
- Funding
  - Donations, gifts
  - Subsidies
- Objectives:
  - Supporting ASAT research activities
  - Making the ASAT approach known
  - Advancing ASAT communication
  - Developing ASAT community
- Does not fund research activities

**Back up**

# Risks – Chemical - Application

Safety = No Harm and Disease

Safe = Risk we are prepared to accept



human health risks

risk assessments

- e.g.
- Inflammation
- Allergy
- Neoplasia
- Degeneration
- Functional change

This is a page from the 'Table of Contents' of Harrison's Principles of Internal Medicine. It is organized into parts and sections, listing various medical topics and their corresponding page numbers. The page is tilted and partially obscured by other elements in the slide.

Part	Section	Page
Part One	INTRODUCTION TO CLINICAL MEDICINE	ix
Part Two	CARDINAL MANIFESTATIONS AND PRESENTATION OF DISEASES	55
Section 1	Pain	55
Section 2	Alterations in Body Temperature	91
Section 3	Neurologic System Dysfunction	111
Section 4	Disorders of Eyes, Ears, Nose, and Throat	164
Section 5	Alterations in Circulatory and Respiratory Functions	199
Section 6	Alterations in Gastrointestinal Function	232
Section 7	Alterations in Renal and Urinary Tract Function	262
Section 8	Alterations in Sexual Function and Reproduction	291
Section 9	Alterations in the Skin	305
Section 10	Hematologic Alterations	348
Part Three	GENETICS AND DISEASE—375	
Part Four	CLINICAL PHARMACOLOGY—419	
Part Five	NUTRITION—451	
Part Six	ONCOLOGY AND HEMATOLOGY	
Section 1	Neoplastic Disorders	
Section 2	Disorders of Hematopoiesis	
Section 3	Disorders of Hemostasis	
Part Eight	DISORDERS OF THE CARDIOVASCULAR SYSTEM	1283
Section 1	Diagnosis	1283
Section 2	Disorders of Rhythm	1309
Section 3	Disorders of the Heart	1377
Section 4	Vascular Disease	
Part Nine	DISORDERS OF THE RESPIRATORY SYSTEM	1443
Section 1	Diagnosis	1443
Section 2	Diseases of the Respiratory System	1456
Part Ten	DISORDERS OF THE KIDNEY AND URINARY TRACT—1535	
Section 1	Disorders of the Urinary Tract	
Section 2	Disorders of the Kidney	
Section 3	Disorders of the Urinary Tract	
Part Eleven	DISORDERS OF THE GASTROINTESTINAL SYSTEM	1631
Section 1	Disorders of the Alimentary Tract	1631
Section 2	Liver and Biliary Tract Disease	1707
Section 3	Disorders of the Pancreas	1738
Part Twelve	DISORDERS OF THE IMMUNE SYSTEM AND CONNECTIVE-TISSUE DISEASES	
Section 1	Disorders of the Immune System	
Section 2	Disorders of the Immune System	
Section 3	Disorders of the Immune System	

**What are the risks we want to assess in order to be satisfied that their use is safe?**

# Matrix

Chemical Application	Primary contact Skin, Intestine, Lung, etc	Systemic: Liver, Kidney, Bladder, Lung, Heart, Pancreas, etc	Systemic: Thyroid, Parathyroid, Adrenals, etc	Systemic: Bone, muscle, connective tissue, etc	Systemic: CNS, Ear, Eye, etc
Inflammation					
Allergy					
Neoplasia					
Degeneration					
Functional change					
.....					

# Warp & Woof

medicines		reduce & refine	reduce & refine
rodenticides		reduce & refine	reduce & refine
insecticides			
herbicides			
fungicides			
disinfectants			
other			
chemical by intended use	safety general	safety relating to mechanism of action	efficacy







**This paper was produced for a meeting organized by Health & Consumers DG and represents the views of its author on the subject. These views have not been adopted or in any way approved by the Commission and should not be relied upon as a statement of the Commission's or Health & Consumers DG's views. The European Commission does not guarantee the accuracy of the data included in this paper, nor does it accept responsibility for any use made thereof.**