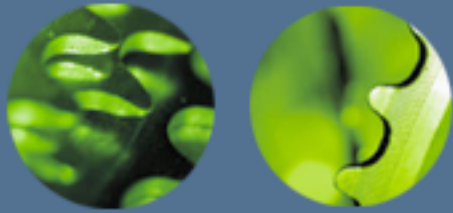




# HEALTH INNOVATION WITHIN SOUTH AFRICAN CONTEXT

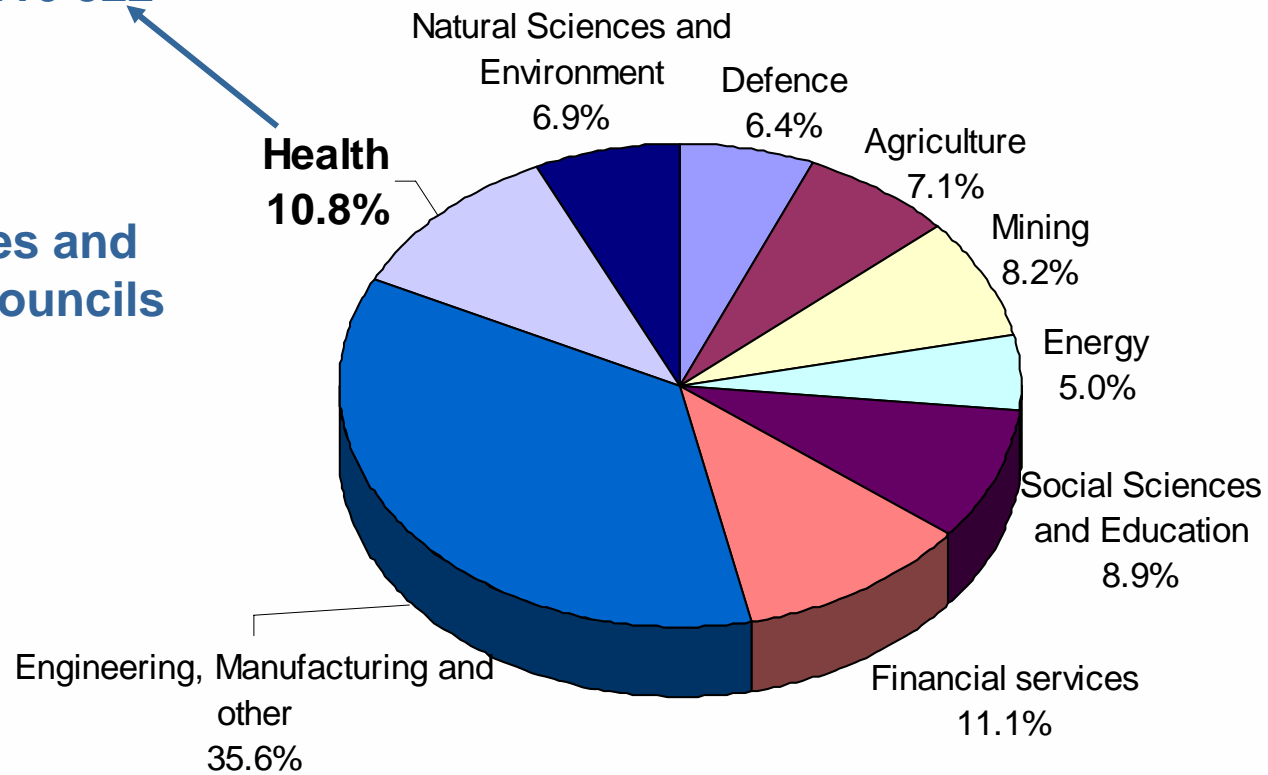


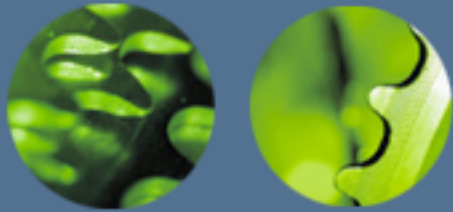


### 2005/06 R&D Expenditure

**R2 066 410 322**

**Universities and  
Science Councils  
= 56.23%**

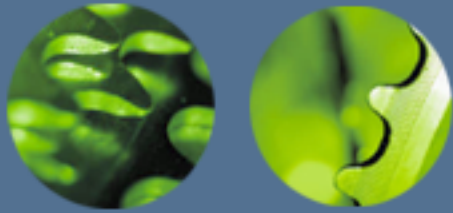




# Health Innovation

Health Innovation refers to the  
*“development of new drugs, vaccines,  
devises and diagnostics, as well as new  
techniques in process engineering and  
manufacturing.”*

Morel et al, 2005



Early stage or highly cross-sectoral generic technology or knowledge platforms requiring a high degree of research and experimental development, as well science and technology human capital development.



## Combined research priorities (not in order of priority)

<b>DISEASE</b>	<b>MRC Burden of Disease (2001)</b>	<b>ENHR (1997 &amp; 2006)</b>	<b>NR&amp;TF (1998)</b>
HIV/AIDS	✓	✓	✓
Homicide / Violence/ Injuries	✓	✓	✓
Tuberculosis	✓	✓	✓
Nutrition	✓	✓	✓
Mental Health	✓	✓	
Diabetes mellitus	✓	✓	✓
Malaria		✓	✓
All cancers		✓	✓
Heart and Circulatory problems	✓		✓
Diarrhoeal diseases	✓	✓	
Respiratory infections	✓	✓	

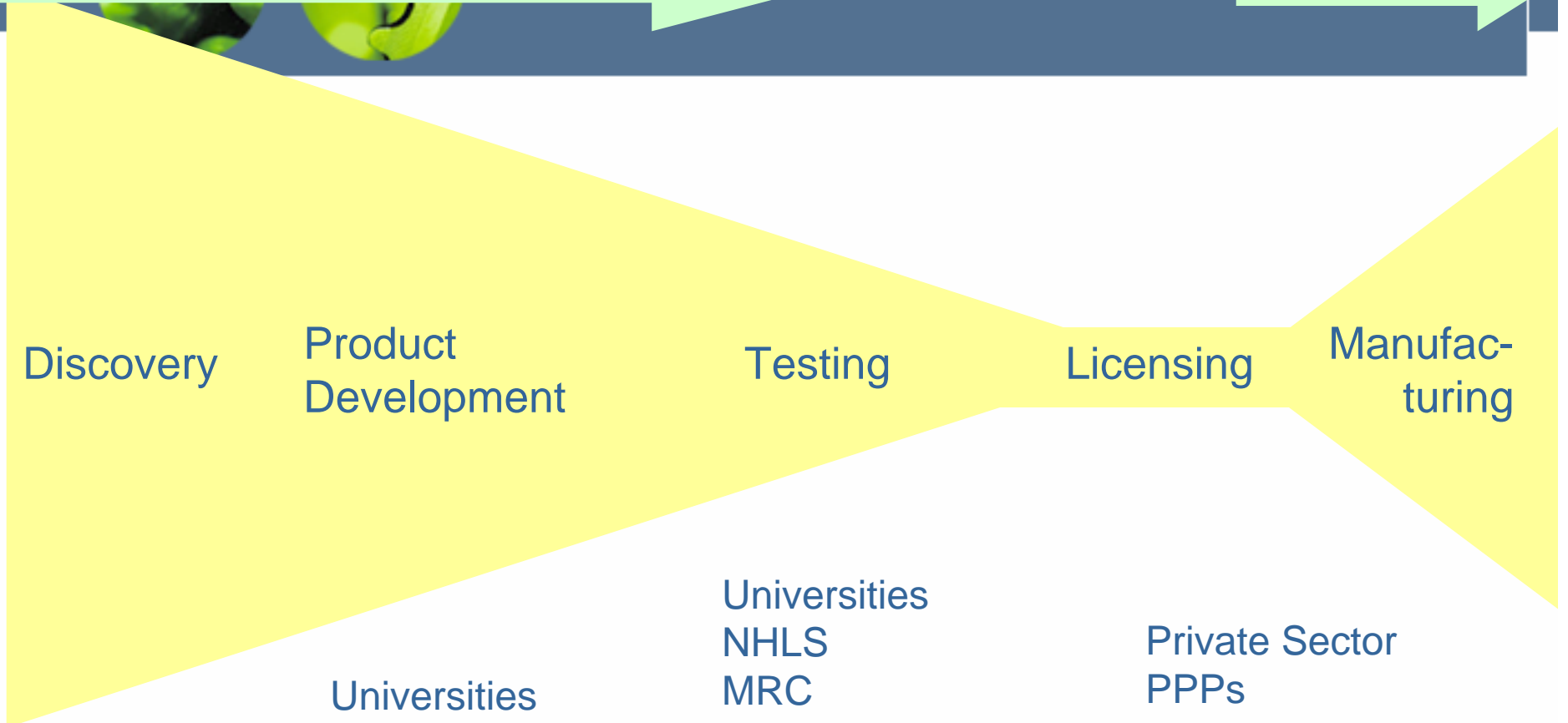
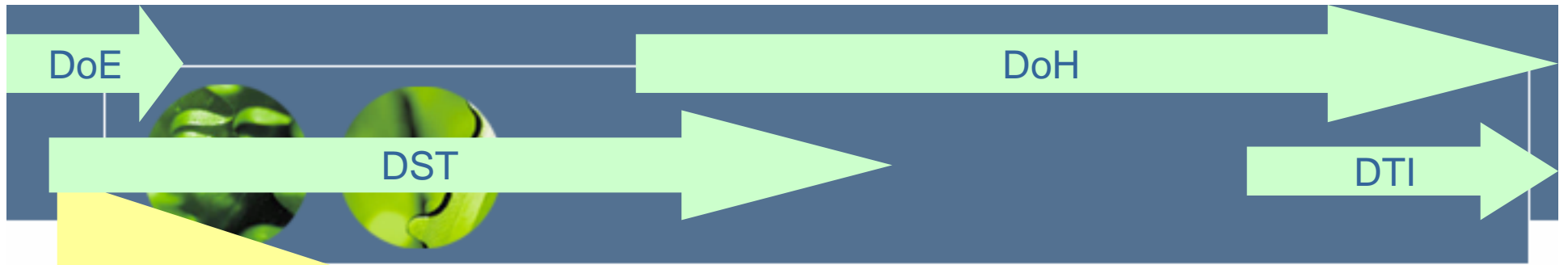
# DST identified priorities

Grouping	Disease
Major Infectious diseases	HIV/AIDS
	TB
	Malaria
Non-communicable diseases and disabilities	Cancer
	Diabetes
	Hypertension / Heart disease / Stroke
	Congenital abnormalities & Genetics
Mental Health	Mental Health / nervous system disorders
Nutrition	
Other infectious diseases	Respiratory infections, incl COPD and asthma
	Endocrine and metabolic diseases
	Zoonoses, New and Emerging diseases
	Diarrhoeal diseases
Injuries	Trauma, including Burns
Reproductive Health, incl Genito-urinary diseases	
Maternal Health and Perinatal Conditions	
ICT in health	Health Informatics, Telemedicine & e-health, Biostatistics and bio-informatics



## EXPECTED OUTCOMES

- Drug discovery and evaluation
- Diagnostics
- Vaccine development
- Medical devices
  - Imaging
  - Self-management tools
  - Telemedicine – including connectivity issues



Universities

Universities  
CSIR  
Private Sector

Universities  
NHLS  
MRC  
HSRC  
Private Sector

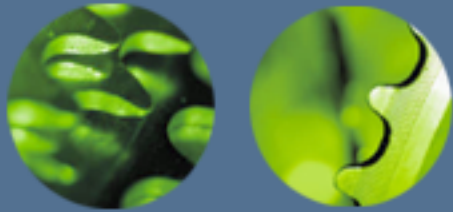
Private Sector  
PPPs



HOW



- Indigenous knowledge
- Basic molecular science and genetics
- Biotechnology
- Nanotechnology
- Nuclear physics
- Manufacturing processes and engineering



## IMPLEMENTATION

- Consortia of researchers
  - develop a specific research strategy per disease or intervention area.
  - universities / science councils will take responsibility for the management of the consortia
  - partner with institutions with limited capacity



## MONITORING AND EVALUATION

- Progress wrt expected outcomes, evaluated on annual basis – through technical committees of consortia and COEs.
- Conference to showcase progress and re-align research efforts where necessary
- Any breakthroughs leading to clinical trials – re-evaluate and enter into discussions with DOH – DST cannot fund clinical trials.
- 5 yearly evaluation of research priorities – with DoH. – Based on outcomes → realign funding