



EUROPEAN TECHNOLOGY
PLATFORM FOR
GLOBAL ANIMAL HEALTH

One Health – Contribution of the Veterinary Industry

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One Health Congress, Melbourne

February 15th, 2011



Overview



- ETPGAH Stakeholders & Objectives
- Output & Vision
- DISCONTTOOLS Gap Analysis & Prioritisation
- Global Perspective – STAR-IDAZ
- Conclusions

One Health Congress, Melbourne,
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Stakeholder Driven - 1

- **European Associations relevant to Animal Health and Welfare and Food Safety:**
IFAH-Europe (industry), COPA-COGECA (farming industry), EuropaBio, Diagnostics, FVE (veterinarians), Eurogroup for Animals
- **International organizations relevant to Animal Health and Welfare, and Food Research Organizations**
e.g. OIE, FAO, WHO, ILRI, GALVmed
- **European Regulatory Authorities**
Heads of Medicines Agencies, European Medicines Agency, EDQM
- **Representatives from the European Research Community**
Universities, Institutes, Network of Reference Laboratories, Networks of Excellence



Stakeholder Driven - 2

- **Member State Representations**
Chief Veterinary Officers, Mirror Groups
- **European Institutions**
 - **European Food Safety Authority, European Commission (DG Research, DG SANCO, DG Development, DG Enterprise)**
- **European Technology Platforms are funded by the European Commission and led by the relevant industry association**

Objectives - 1

- Prioritise Animal Diseases
- Carry out Gap Analysis
- Examine Fundamental Research Capacity
- Look at Enabling Factors (GLP, IP)
- Ensure supportive Regulatory Environment

Objectives - 2

- Explore Global Perspectives
- **Our major contribution to One Health is to control zoonoses in animals & prevent them from infecting humans**

ETPGAH Output



The Vision

“To facilitate and accelerate the development and distribution of the most effective tools for controlling animal diseases of major importance to Europe and the rest of the world, thereby improving human and animal health, food safety and quality, animal welfare, and market access, contributing to achieving the Millennium Development Goals.”



European Technology Platform
for Global Animal Health

Vision 2015



Published August 2005

Objectives

- Focus & prioritise research
- Stimulate delivery of new and improved diagnostics, vaccines & pharmaceuticals
 - Develop database on 50 diseases from ETPGAH
 - Develop Prioritisation model
 - Develop Gap Analysis model





**DISCONTOLS SCORING MODEL
DISEASE**

Criteria	Scores					Coef	Total (score*coef)
Disease knowledge	0	1	2	3	4		/100
1. Speed of spread						2.5	
2. Number of livestock species involved						2.5	
3. Persistence of infectious agent In the environment						2.5	
4. Risk of spread to susceptible populations						2.5	
5. Potential for silent spread						2.5	
6. Wildlife reservoir and potential spread						2.5	
7. Vector reservoir and potential spread						2.5	
8. Variability of the agent						2.5	
9. Understanding of fundamental immunology						2.5	
10. Host pathogen interaction						2.5	
Impact on animal health and welfare	0	1	2	3	4		/100
1. Disease impact on production						8.33	
2. Duration of animal welfare impact						8.33	
3. Proportion of animals affected suffering pain/injury/distress as a result of the disease						8.33	
Impact on public health – human health	0	1	2	3	4		/100
1. Impact of occurrence on human Health						4.16	
2. Likelihood of occurrence						4.16	
3. Impact of occurrence on Food Safety						4.16	
4. Transmissibility (spread from animals to humans)						4.16	
5. Spread in humans						4.16	
6. Bioterrorism potential						4.16	
Impact on wider society	0	1	2	3	4		/100
1. Economic direct impact (including cumulative cost (e.g. Enzootic vs. epizootic))						8.33	
2. Economic indirect impact (social, trade)						8.33	
3. Agriterrorism potential						8.33	
Impact on trade	0	1	2	3	4		/100
1. Impact on international Trade due to existing regulations						6.25	
2. Impact on EC Trade due to existing regulations						6.25	
3. Potential for zoning						6.25	
4. Impact on Security of Food supply						6.25	
Control Tools	+2	+1	0	-1	-2		/100
1. Appropriate diagnostics						16.66	
2. Appropriate vaccines						16.66	
3. Appropriate pharmaceuticals						16.66	
Total score							



**DISCONTOLS PRODUCT GAP ANALYSIS
DISEASE**

Criteria	Scores					Coef	Total /100
	+2	+1	0	-1	-2		
Diagnostic tools							
1. Availability*						4.17	
2. Prevention and control - Differentiation of infected from vaccinated (DIVA)						4.17	
3. Strategic reserve						4.17	
4. Capacity of production						4.17	
5. Market potential						4.17	
6. Affordable						4.17	
7. Quality/stability durability						4.17	
8. Sensitivity						4.17	
9. Specificity						4.17	
10. Reproducibility						4.17	
11. Simplicity/ease of use						4.17	
12. Speed						4.17	

Criteria	Scores					Coef	Total /100
	+2	+1	0	-1	-2		
Vaccination tools							
1. Commercial availability*						4.55	
2. Monitoring for infection in a vaccinated population						4.55	
3. Strategic reserve						4.55	
4. Capacity of production						4.55	
5. Market potential						4.55	
6. Affordable						4.55	
7. Quality/stability						4.55	
8. Safety of vaccines						4.55	
9. Efficacy						4.55	
10. Immunity						4.55	
11. Convenience of use						4.55	

+

Criteria	Scores					Coef	Total /100
	+2	+1	0	-1	-2		
Pharmaceutical tools							
1. Availability*						4.55	
2. Prevention and control						4.55	
3. Strategic reserve						4.55	
4. Capacity of production						4.55	
5. Market potential						4.55	
6. Cost						4.55	
7. Quality						4.55	
8. Safety Animal						4.55	
9. Safety Consumer/user concerns						4.55	
10. Safety Environment						4.55	
11. Resistance						4.55	

* If score is +2, please only answer question 5 on "Market potential" (as there is a gap in product). If no product exists, a weight of +20 on the availability criteria shall be applied.

Diseases in Focus

- **Epizootic, Production & Zoonotic Diseases**
 - Zoonotic Diseases (19 diseases, **8 completed**): Anthrax, Bovine TB, **Brucellosis**, BSE, **Campylobacteriosis**, **Chlamydiosis**, Crimean Congo Haemorrhagic Fever, **Cryptosporidiosis**, Cysticercosis, **E. coli**, Echinococcosis, Hepatitis E, **Leishmaniasis**, Leptospirosis, Nipah, **Q Fever**, Rabies, Salmonellosis, **Trypanosomiasis**
- **Expect to complete all diseases by June, 2011**

Results on www.discontools.eu

- Gaps in diagnostics, vaccines & pharmaceuticals identified
- Diseases prioritised
- Focus research on priority gaps
- Focus will provide framework to accelerate breakthroughs
- Breakthroughs will help us to obtain better control of animal diseases, including zoonoses
- This is a tangible contribution to the One Health concept!



Global Perspective - 1

- The STAR-IDAZ* project (funded by the European Commission) provides a global platform for collaboration
- Improve coordination of research activities on the major infectious diseases of animals (including zoonoses) so as to hasten the delivery of improved control methods
- The DISCONTTOOLS work will be a reference point for STAR-IDAZ!





Global Perspective - 2

- Canada, US, Mexico, Brazil, Argentina, Europe, Russia, India, China, Australia, New Zealand and animal health industry involved
- OIE, Wellcome Trust, Agriculture Forestry and Fisheries Research Council, Japan & EFSA are associated partners/observers
- Will bring focus & efficiency to global research – tremendous contribution to One Health!

Conclusions - 1

- The ETPGAH is stakeholder driven
- Vision to develop more effective tools to control diseases in animals
- DISCONTTOOLS delivers gap analysis & prioritisation
- Framework conditions created to make research more efficient



Conclusions - 2

- Result will be the accelerated development of new or better diagnostics, vaccines and pharmaceuticals to control animal diseases
- STAR-IDAZ provides a global platform
- Major contribution to One Health is to control zoonoses in animals & prevent them from infecting humans





Thank you !

For more information:

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DISCONTTOOLS www.discontools.eu



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