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SABRE in the context of the framework programmes for research

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Animal production and health in the Framework Programmes

- FP5 (1998-2002)
 - Quality of life and management of living resources:
 - Key-Action 2: Control of Infectious Diseases
 - Key-Action 5: Sustainable Agriculture, Fisheries and Forestry, and Integrated Development of Rural Areas including Mountain Areas
- FP6 (2002-2006)
 - Thematic priority 5: Food quality and safety
 - Scientific support to policies (“priority 8”)



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Animal production and health support in FP6

- Animal production and health support
 - FP5 \approx €105million EU contribution
 - approximately 50%:50% KA5:KA2
 - FP6 \approx €150million EU contribution
 - approximately 80%:20% TP5:SSP
- Significant increase in funding FP5:FP6
 - Primarily in terms of “Food quality and safety” (thematic priority 5)



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Projects in FP6

- Major funding
 - Animal genomics
 - Animal health
 - Animal welfare
- Specific projects:
 - Epizootic diseases
 - FMD, CSF, AI
 - Endemic and zoonotic diseases
 - Campylobacter; Johne's; salmonella in poultry
 - Parasitology
 - Roundworms, Liver fluke
 - Antibiotic replacements
 - Welfare
 - Laying hens; pig castration
 - Societal aspects
 - Cloning; slaughter methods



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Animal Genomics



Network of Excellence

13 partners

Genomics of host pathogen interactions in
cattle, pigs, poultry, salmon, sheep

www.eadgene.org

SABRE

CUTTING EDGE GENOMICS FOR SUSTAINABLE ANIMAL BREEDING



Integrated project

33 partners

Fundamental genomics in pig, cattle
and poultry, including pig genome
sequencing

www.sabre-eu.eu

Technology platform

Farm animal breeding
and reproduction

75 signatories

www.fabretp.org





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Animal health



Network of excellence

15 partners

Prevention and control of zoonoses
and food borne diseases

www.medvetnet.org



Network of excellence

20 partners

Research in epizootic diseases

www.epizone-eu.net



A European Technology Platform
for global animal health - Vision 2015

Technology platform

Global animal health

www.ifah.be/Europe/euplatform/platform.htm



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Animal welfare



Integrated project

41 partners

Defining an animal-welfare standard

www.welfarequality.net

Towards FP7

- Commission proposal 2005
 - 7 years; €70 billion
- Revision by Council and Parliament
 - General support, but:
 - budgetary limits
 - general amendments
 - specific issues, such as research on human stem cells
- Expecting finalisation November 2006
 - Budget € 54 billion
 - First work-programme in December 2006

Framework Programme 7 2007 – 2013

***Cooperation* – Collaborative research**

***Ideas* – Frontier Research**

***People* – Human Potential**

***Capacities* – Research Capacity**

+

JRC (non-nuclear)

JRC (nuclear)

Euratom



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Cooperation – Collaborative research

Theme 2

1. Health
2. **Food, agriculture and biotechnology**
3. Information and communication technologies
4. Nanosciences, nanotechnologies, materials and new production technologies
5. Energy
6. Environment (including climate change)
7. Transport (including aeronautics)
8. Socio-economic sciences and the humanities
9. Security and space



2. Food, Agriculture and Biotechnology

**Sustainable production and management of biological resources
from land, forest, and aquatic environments**

“Fork to farm”: Food, health and well being

**Life sciences and biotechnology for sustainable
non-food products and processes**



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2. Food, Agriculture and Biotechnology

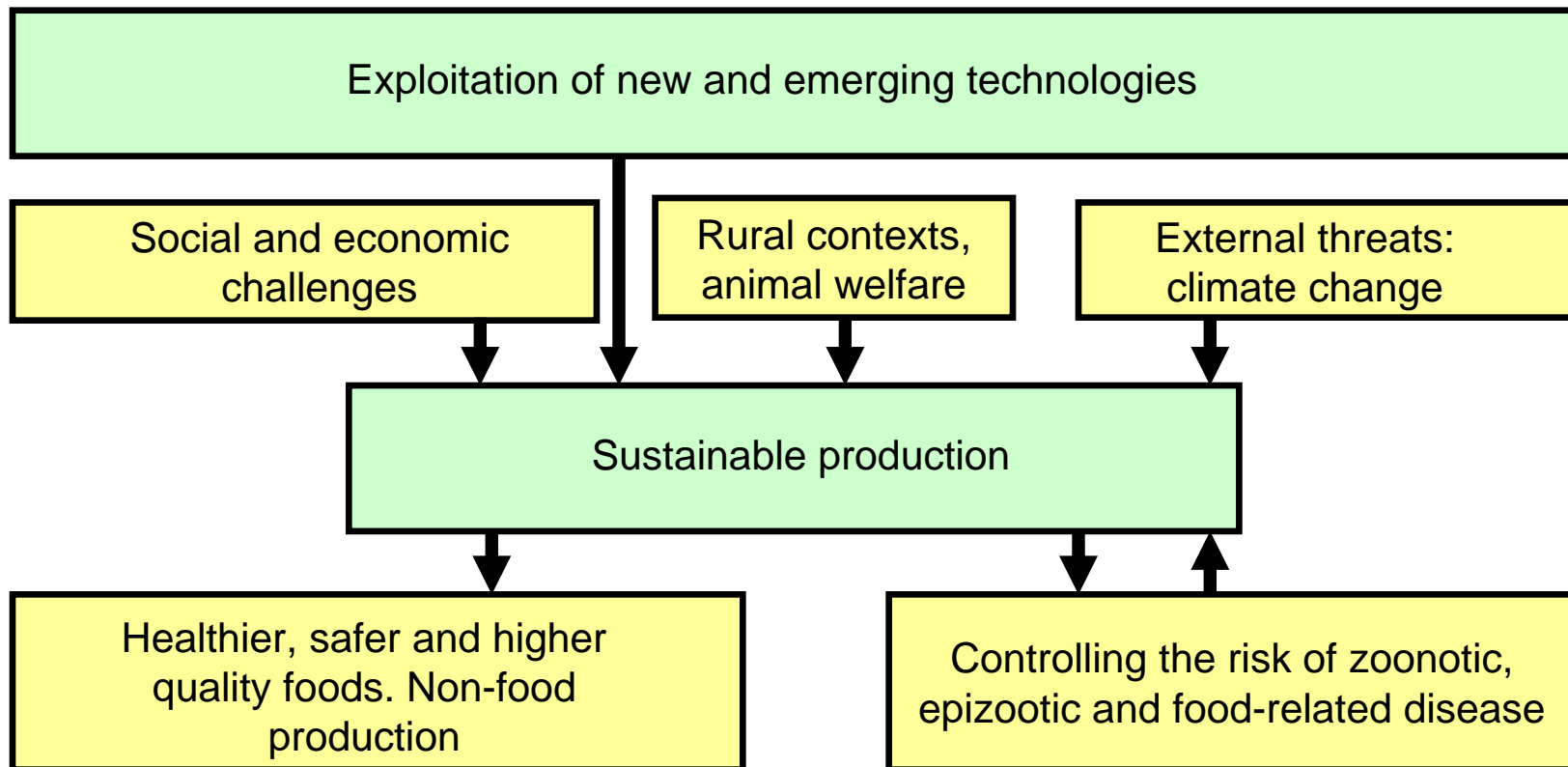
**Sustainable production and management of biological resources
from land, forest, and aquatic environments**

“Fork to farm”: Food, health and well being

Life sciences and biotechnology for sustainable
non-food products and processes



Activity 1: Sustainable production and management of biological resources from land, forest and aquatic environments: OBJECTIVES





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Activity 1: Sustainable production and management of biological resources from land, forest and aquatic environments:

AREAS

“Enabling” research

Micro-organisms; plants; animals

“-omics”; bioinformatics; systems biology; tools and technologies

Sustainable production

Agriculture; horticulture; forestry; fisheries; aquaculture

Improved crops; plant health; control of pests, disease and other threats

Optimised animal health, production and welfare

Exploitation of genetics knowledge; breeding, physiology, behaviour

Control of infectious diseases; epizootics, zoonoses; management of by-products

Building of the KBBE

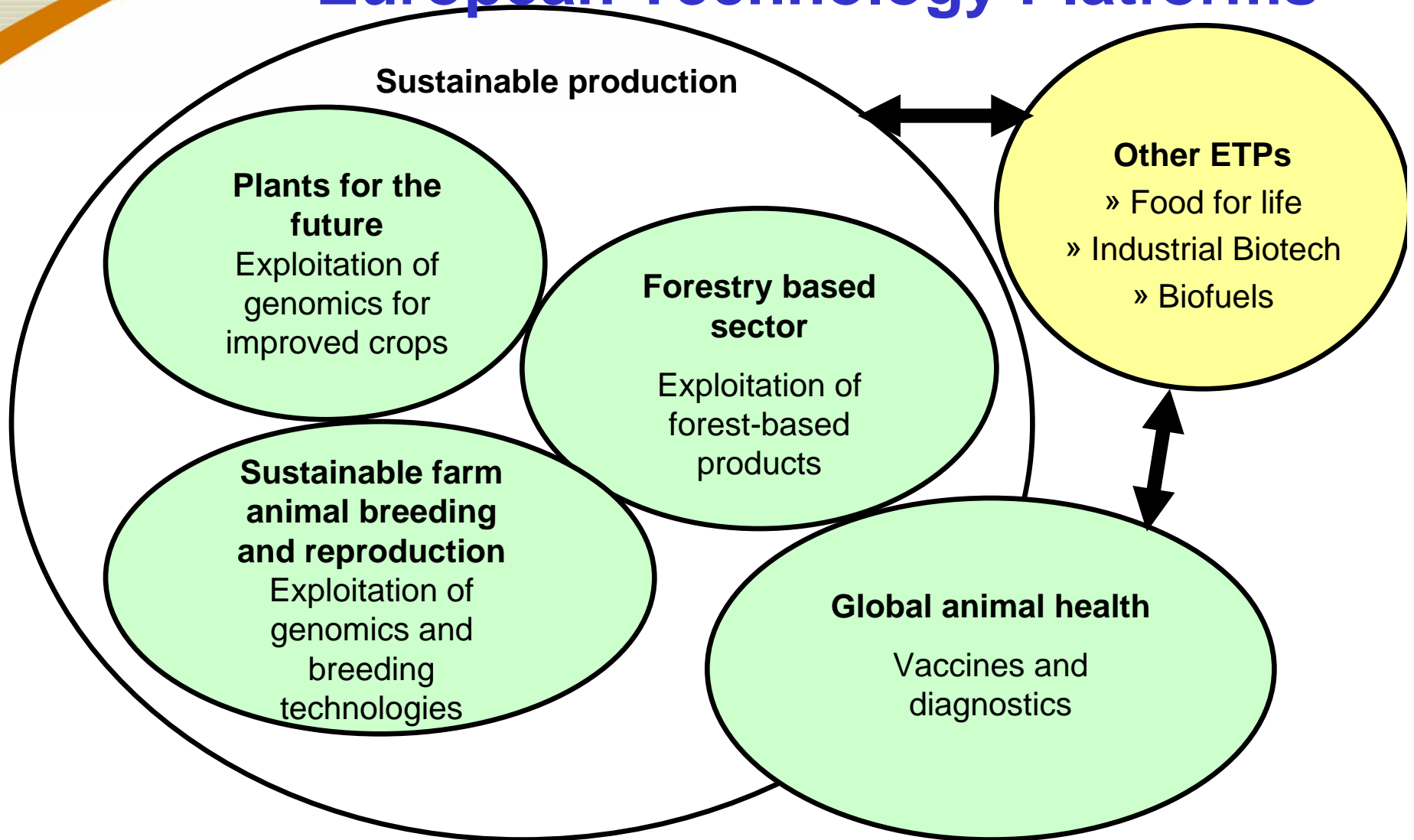
Tools for policy makers in support of community policy

Rural and coastal development; International development

Socio-economics and cost-benefits. Farming systems, including non-food



Activity 1: European Technology Platforms





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Work-programme

- Informed by:
 - Community (including the TPs)
 - Advisory groups
 - Directorates General (policy)
- Informed and finalised by the Programme Committee
 - Member States and Associated States
- 1 call per year for “Cooperation”
- Publication foreseen in December 2006



Inputs from the community: EC-US task force on biotechnology research

- EC-US task-force established 1990,
renewed 2006
- Aims to:
 - Examine trends in biotechnology
 - Exchange ideas among US and EU
programme managers on future
directions of biotechnology research
- Satellite workshops on specific
subjects



Inputs from the community: EC-US task force on biotechnology research

- EC-US satellite meeting on “The future of livestock genomics”, Brussels, July 2006
- Key issues for collaboration
 - Tools and resources, specifically
 - Genome sequencing
 - Curation of genomes
 - Development of SNP panels
 - Development of phenotype databases
 - Mobility of researchers
 - Genomics of microbial communities, including hosts, pathogens and their interactions.



Draft topics for first WPs: genomics and breeding

- Food, Agriculture and Biotechnology (theme 2)
 - Mining genomics information of farm animals to generate new information on the genetic basis of phenotypes important to sustainable agriculture.
 - Development of technologies and tools for the exploitation of livestock genome
 - Genomics to develop improved approaches to the control of endemic infectious, or metabolic, farm animal diseases
 - Breeding tools for improved livestock products
- Health (theme 1)
 - Genome-wide association studies in mammalian non-rodent models for the identification of genes relevant to human health and disease



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Further draft topics related to animal production and health

- Using new technologies to identify (re-)emerging pathogens from wildlife reservoirs
- New and converging technologies for Precision Livestock Farming in European animal production systems
- Optimising research to develop effective tools for controlling infectious animal diseases
- Improving animal health, product quality and performance of organic and low-input livestock systems through breeding
- Improving production through investigating the gut physiology of farm animals and its interaction with the gastro-intestinal microflora
- Coordination of European research in the area of animal health, including emerging threats, infectious diseases and surveillance
- Plant made recombinant pharmaceuticals for animals
- Novel methods of treatment of animal by-products for the production of substances with biologically valuable functional properties
- Plus additional, specific animal health and welfare based topics



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Information

- EU research: ec.europa.eu/research
- Agriculture research:
ec.europa.eu/research/agriculture/index_en.html
- Seventh Framework Programme:
ec.europa.eu/research/future/index_en.cfm
- Information on research programmes and projects: cordis.europa.eu