



EFFAB



Market challenges to poultry breeding

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Shared Research & Development



Shared Specialized Services



Layer Breeding



Turkey Breeding



Pig Breeding



Aquaculture Breeding



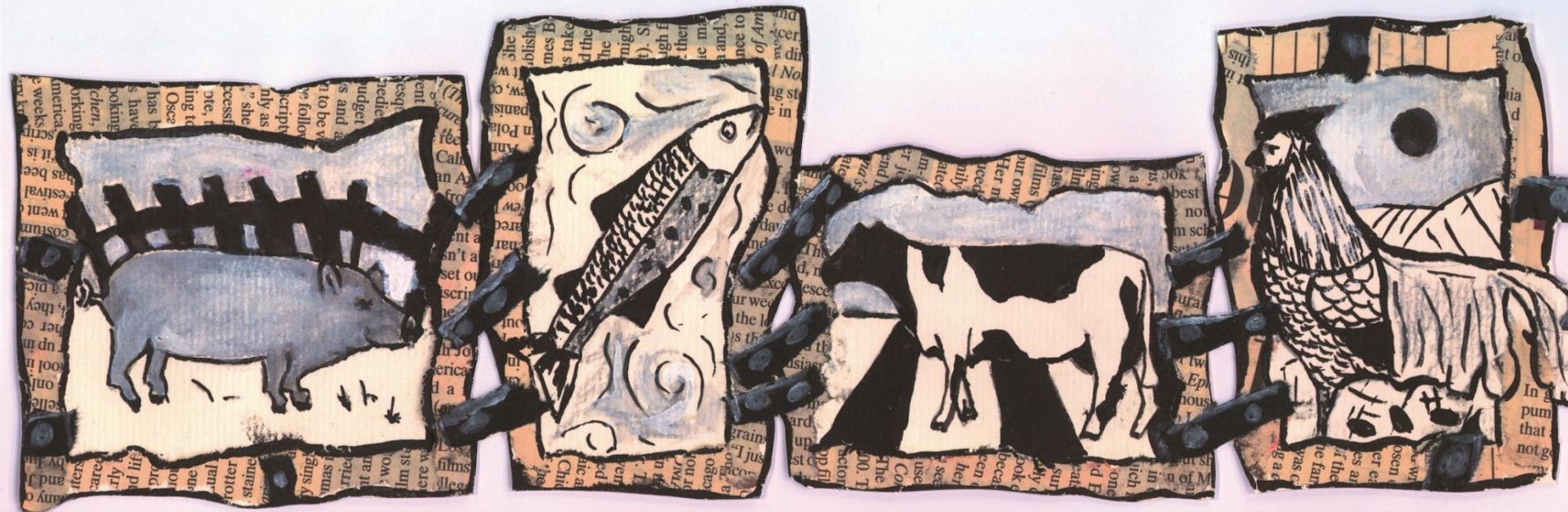
Traditional Poultry Breeding



Caringa Sud Ovest



European Forum of Farm Animal Breeders














EFFAB mission

Our mission is to promote the interests of our members to European decision-makers; to be the main forum representing farm animal breeding, supporting science-based policy and stimulating relevant EU research and innovation.



EFFAB membership

Ruminants	Pigs	Poultry	Aquaculture
CRV 	ANAS office	Aviagen 	Aquagen 
EBLEX	ANPS	Cherry Valley	Marine Harvest
Geno		Hendrix Genetics 	
Genus PIC		Cobb Europe 	
ICBF 	Pig Research Centre (Danbred) 	Hubbard 	
Semenitaly	IFIP	Lohmann Tierzucht	
UNCEIA 	Norsvin	SYSAAF	
Viking Genetics 	TOPIGS 		
Biosciences KTN, Merial, Intervet Int., Stonebridge, Aumüller, CCSI			

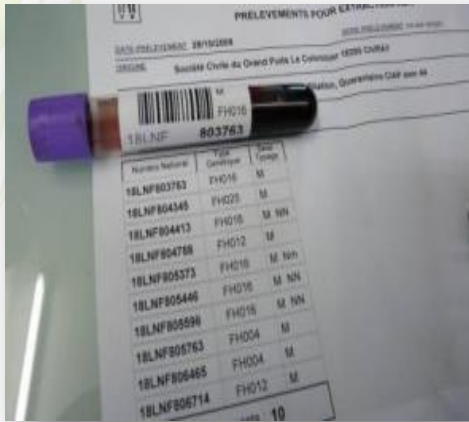
Challenges to the poultry (breeding) business

- New breeding technologies
- Financial margins
- 5 challenges to (EU) poultry business

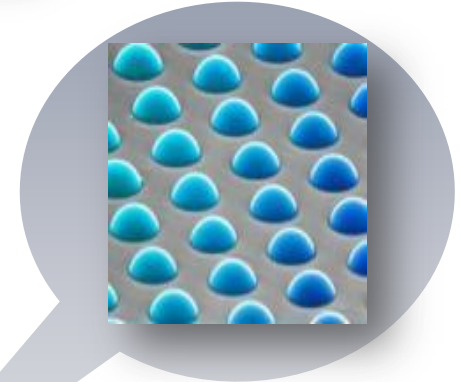
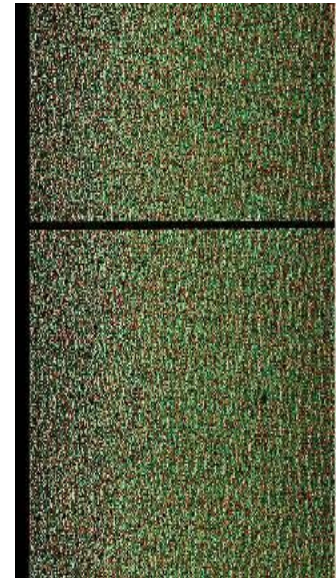
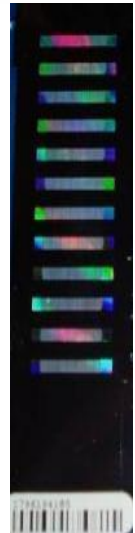
Challenges to the poultry (breeding) business

- *New breeding technologies*
- Financial margins
- 5 challenges to (EU) poultry business

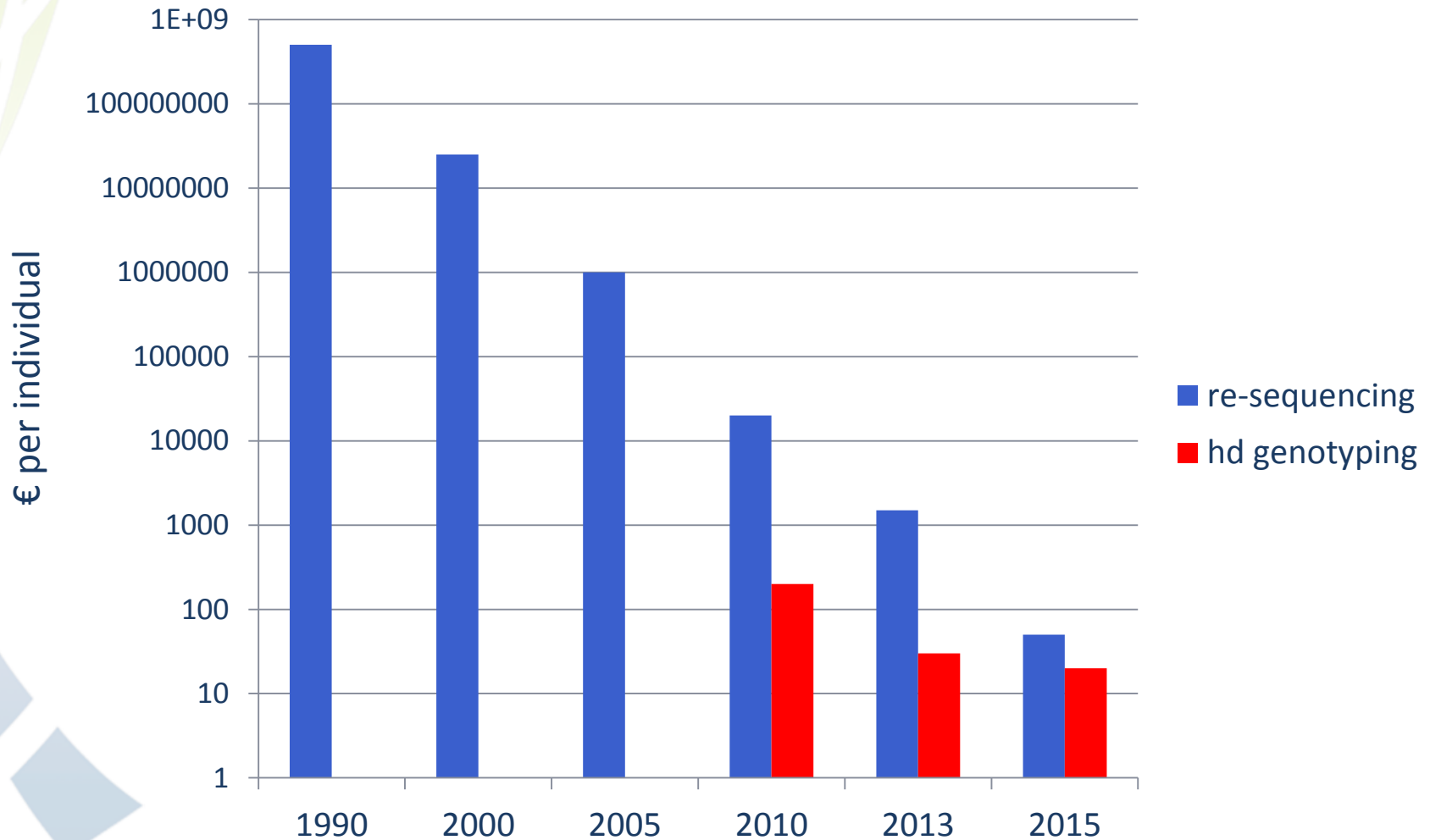
Genomic Breeding Value by analyzing 60,000 DNA markers (SNPs)



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49191424 57636  
020200000220001120500202220120200020055022222122202102120222211251522025201522110  
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2000201020210000222225202121222202001212122210122002200020001112
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Cost of sequencing approaches cost of genotyping



GMO technology



Animal Genetics Sector

Species						
Company						
Hendrix Genetics						
EW Group	●	●	●		●	
Grimaud	●	●		●		
Tyson		●				
Genus				●		●

The Market Place



Hybrid



ISA



Cobb



LNS

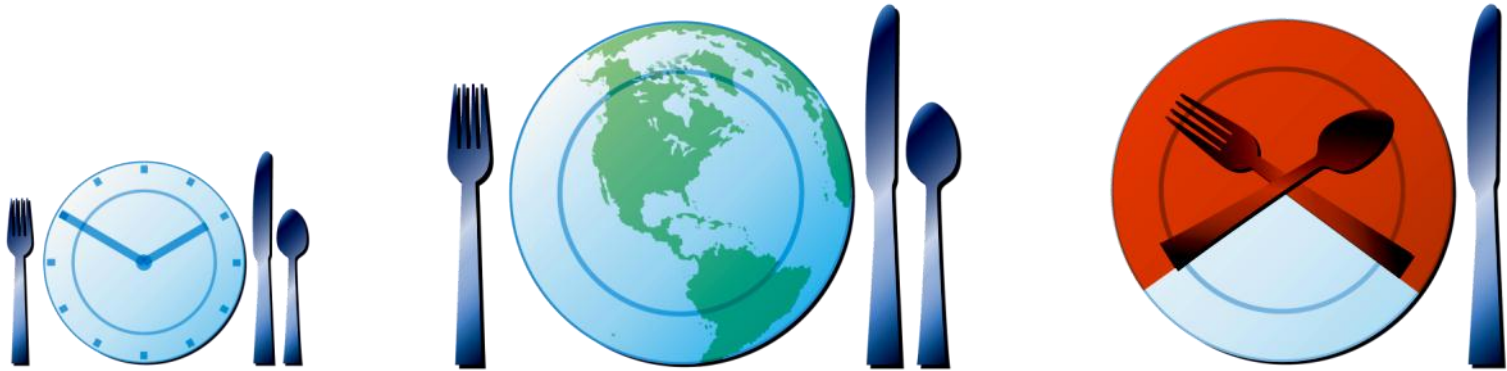


Hypor

Challenges to the poultry (breeding) business

- New breeding technologies
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The Global Challenge



50 years

from now the world population will require



100%

more food,
and



70%

of this food must come from **efficiency-improving technology**

Dramatic increase of genetic potential allows superior efficiency of animal production

Species	Trait	Performance level		
		1960	2005	Δ (%)
Pig	# weaned/sow/year	14	21	50
	meat %	40	55	37
	kg meat/ton feed	85	170	100
Broiler chicken	# days until 2 kg	100	40	60
	kg feed/kg live weight	3,0	1,7	43
Laying hen	# eggs per year	230	300	30
	# eggs/ton feed	5.000	9.000	80
Dairy cow	kg milk/cow/year	6.000	10.000	67

Rewards for breeding programs

Species		Payment to breeding company as proportion of farm gate value (%)
Animals	Broiler	0.6
	Pig	0.4
Plants	Corn	5
	Tomato	4

www.ers.usda.gov

United States
Department of
Agriculture



Economic
Research
Report
Number 130
December 2011

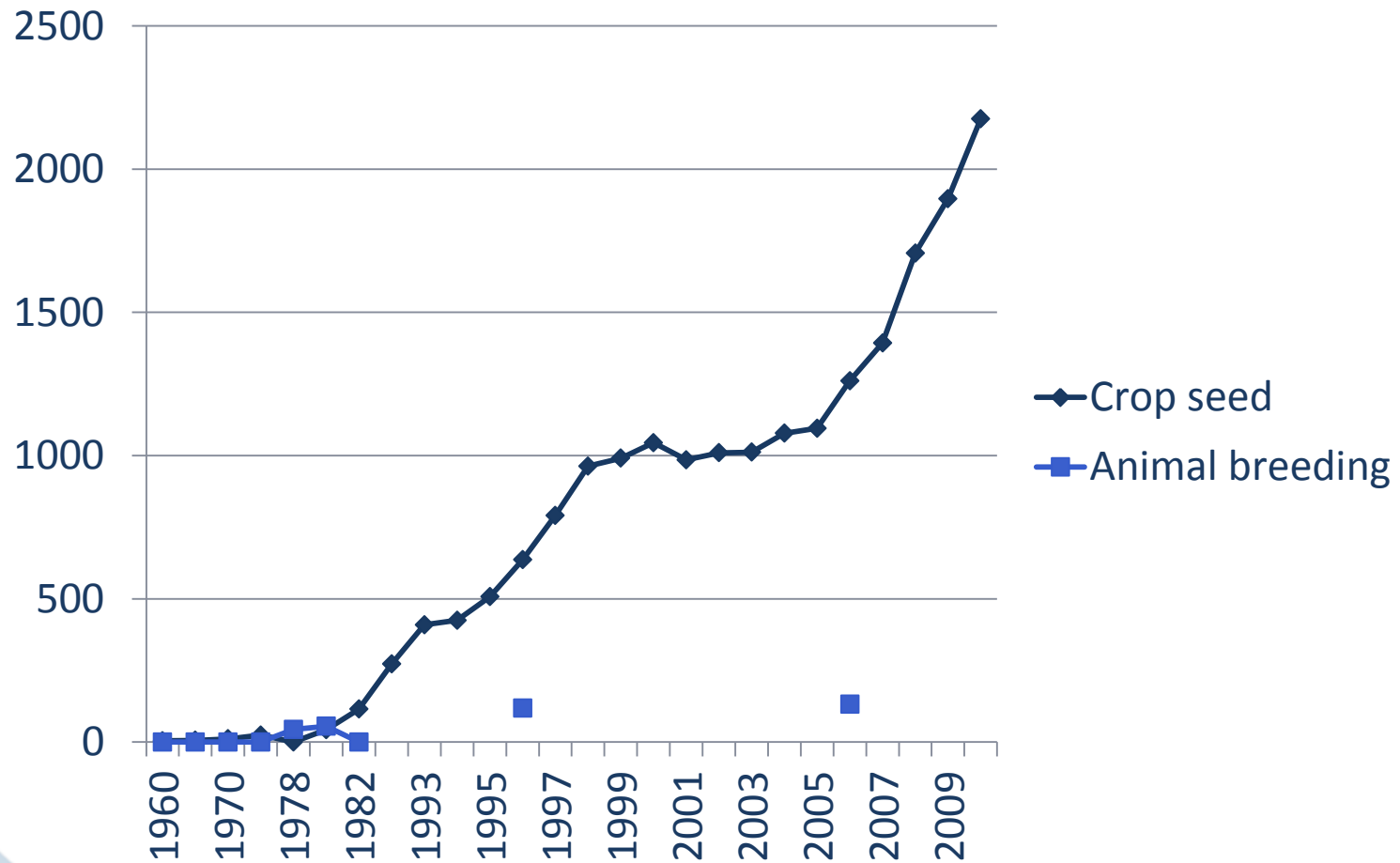
Research Investments and Market Structure in the Food Processing, Agricultural Input, and Biofuel Industries Worldwide

Keith O. Fuglie
Paul W. Heisey
John L. King
Carl E. Pray

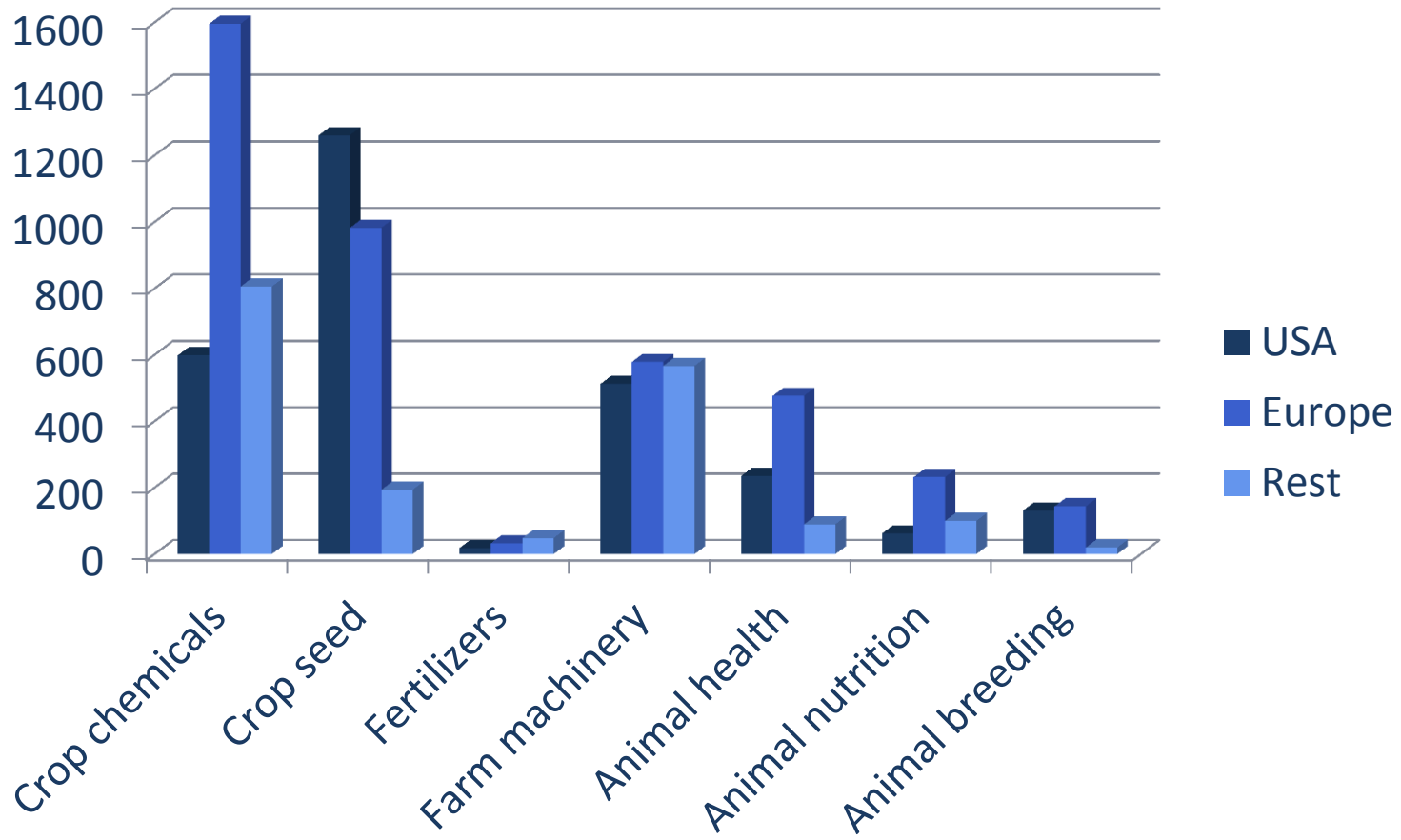
Kelly Day-Rubenstein
David Schimmelpfennig
Sun Ling Wang
Rupa Karmarkar-Deshmukh



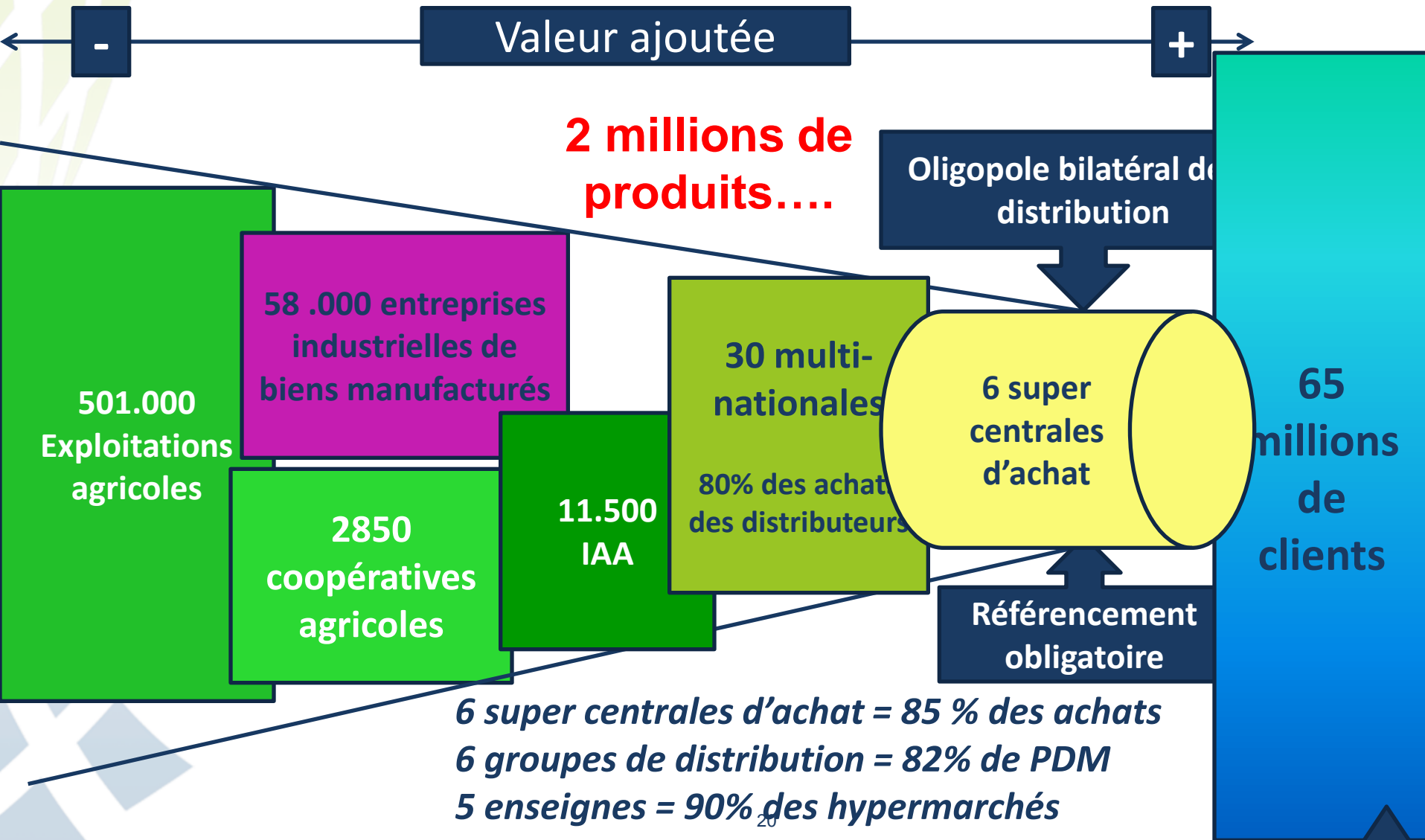
Private R&D spending on Crop Seed and Animal Breeding in USA (million US\$)



Private Sector expenditures for R&D in 2006 by region (Million US \$)



Situation en France dans le canal de distribution en 2012



Who makes the margins?

	Margin		
Consumer product	Primary production	Private label producers	Retailers
Private label products	0	+	0
MDD (house brands)	0	0	+

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???????? ????????	+	+	0

Making margins?

Innovation!!!

The success of capitalism is in

“market tested innovations”

(Deirdre McCloskey)

Some protection of return on R&D investments:

- Patenting
- Branding
- Uniqueness
- Speed of innovation

Challenges to the poultry (breeding) business

- New breeding technologies
- Financial margins
- *5 challenges to (EU) poultry business*

Challenge 1

Sharp changes in geo-political balance of power

From a bi- or one polar world to a clustered world

- Regional free trade agreements
- Change from military to monetary power
- More to traditional economics: land, labor, money/cash
 - Increasing importance of the BRICS countries
- Economic/monetary crises caused by:
 - A failing banking system
 - Excessive governmental debts based on a non realizable economic perspectives
- Growing power of consumers versus production with needs for:
 - Diversification/choice of product offering
 - Added value (deboning, further processing, per-packaging)
 - Brands
 - Food service versus retail
- **But also a strong need to stay price competitive**

Challenges 2

Sharp changes in geo-political balance of power

Food safety

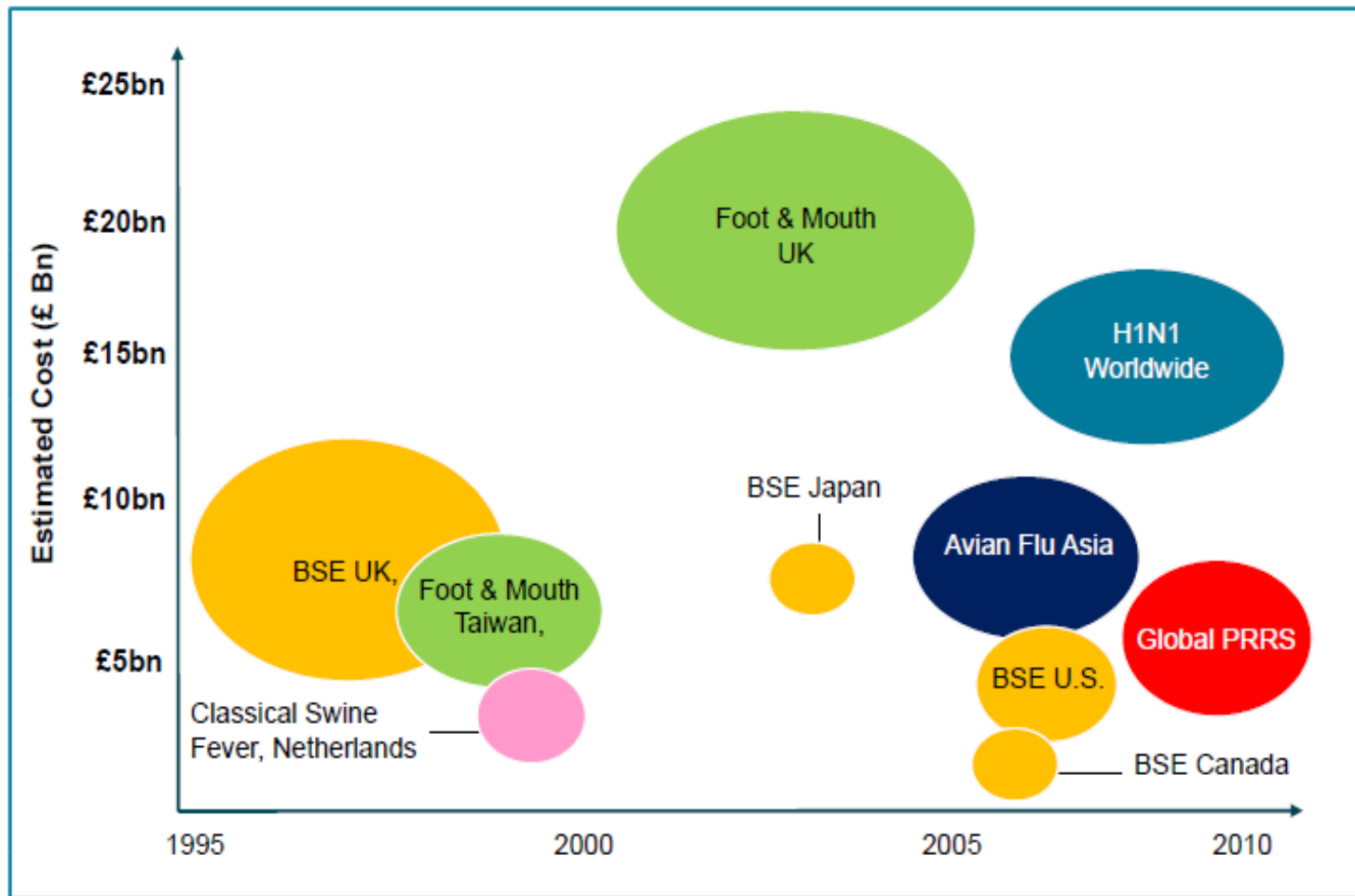
Residues

Pathogens (Salmonella, E-coli, Campylobacter, etc)

Limitation (in the use) of antibiotics

Disease risks

Historical livestock disease events



Note: Figures are estimates and are presented as relative size 1994 - 2004

Newcomb J, One World, One Health, An economic perspective, 2004 FAZ 09.11.2005

Challenge 3

Sharp changes in geo-political balance of power

Food safety

Animal welfare

Transport

Management/housing systems

Treatments and mutilations

Growth rate

Challenge 4

Sharp changes in geo-political balance of power

Food safety

Animal welfare

Europe versus de rest of the world

More sensitive to sustainability: animal welfare and GMO's

Large internal differences

- In (application) of legislation
- Nationalistic consumer awareness (stimulated)

Internal fragmentation and growing nationalistic protection

Stable population and GDP

But Europe does not force level playing field for imports

HOSELDINIZ
ETIM KYIPPO

ΠΡΟΤΑΣΗ ΕΠΙΧΕΙΡΗΣΗΣ
ΜΕΤΑΦΡΑΣΤΕΛΕΣ
ΜΕ ΤΕΛΟΣ ΣΕΝΤΡΕΣ

STOP
GMO!

ΠΡΟΤΕΙΝΕΤΑΙ
ΤΗ ΤΩΝΑ
ΕΠΙΣΤΑΣΗ

...nicosia mater pin nicosia mater

EU actions/directives targeting animal breeding directly

- EFFAB single issue list:

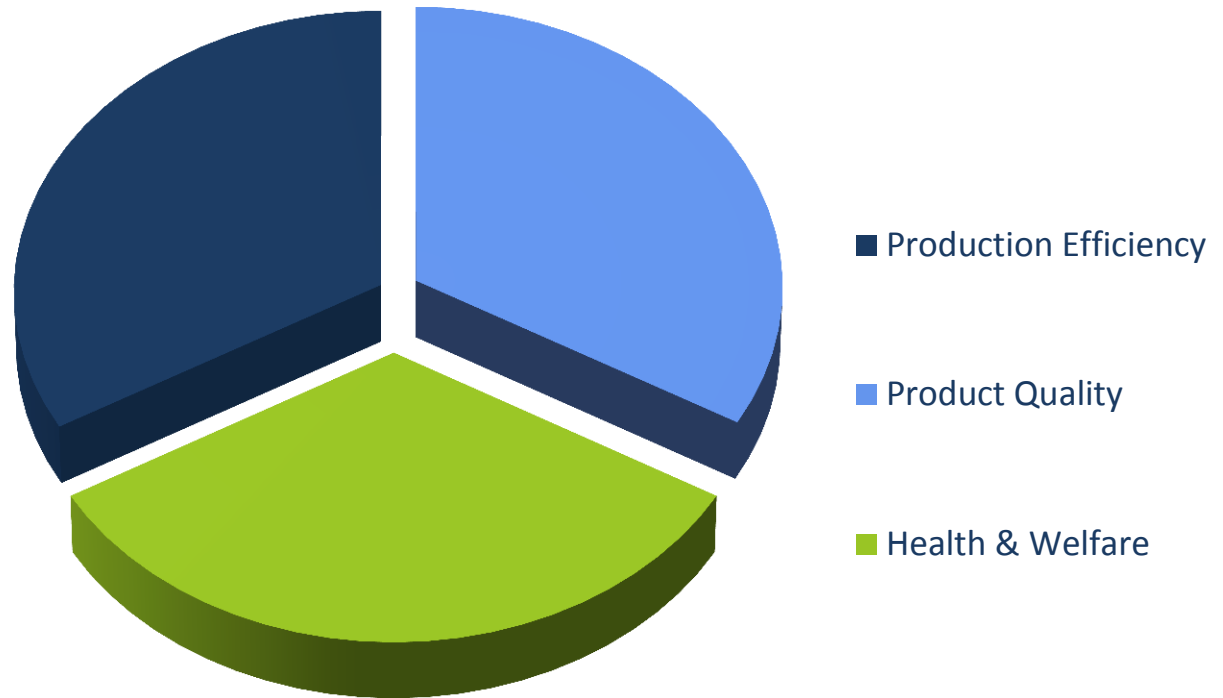
- Cloning
- GMO
- Biodiversity
- Piglet castration
- Dehorning
- Broiler welfare
- Dairy farming systems

1. Legislation
2. Direct (NGO) (retail) pressure on supply chain

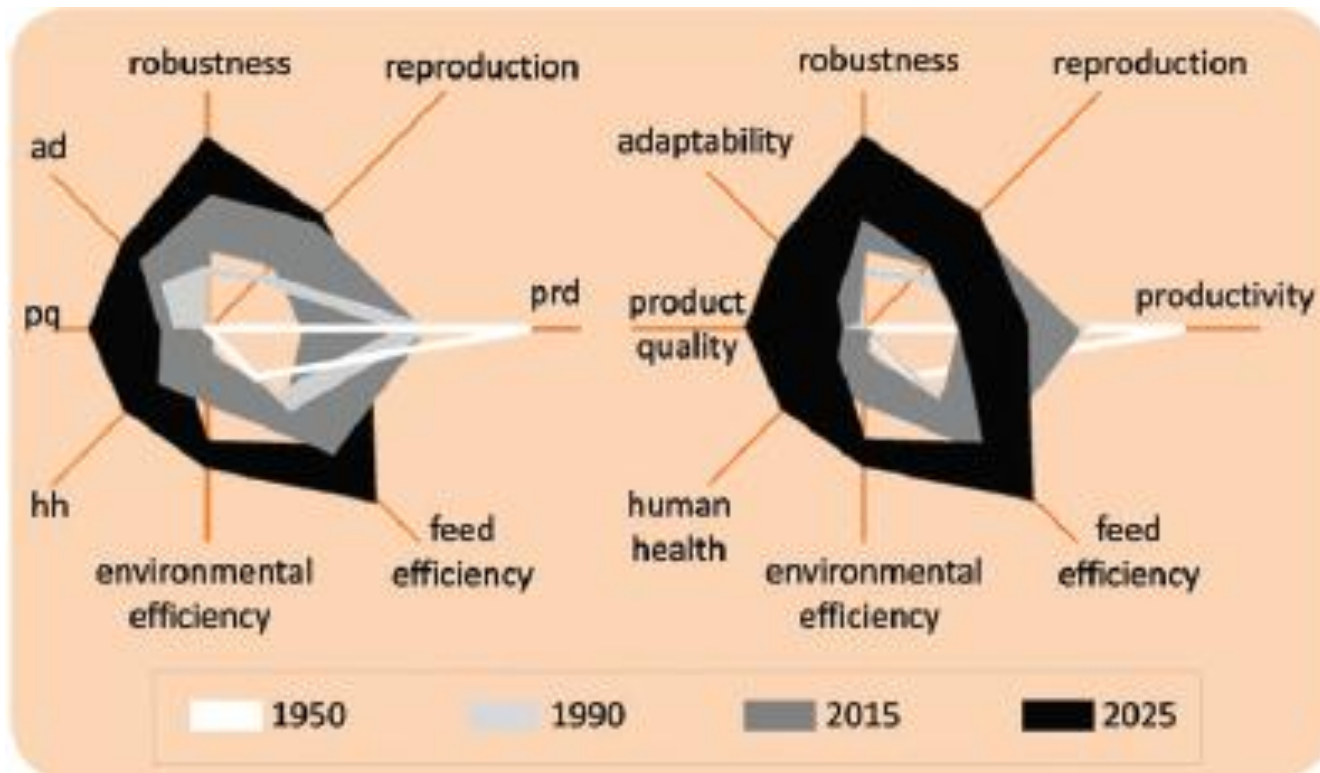
- EU Animal Welfare Law:

- Animal Welfare Reference Centres
- Welfare Indicators
 - *Outcome based indicators versus system indicators!*

Balanced Breeding



Shift of breeding goals 1950 - 2025



From: Neeteson, Knap & Avendano, 2013, Animal Frontiers,3, 52-57

Challenge 5

Sharp changes in geo-political balance of power

Food safety

Animal welfare

Europe versus rest of the world

Causing

Different developments
from one EU country to
the other



Conclusion

Every new challenge
is an
opportunity
for
innovation and for success