



Compulsory Insurance Systems – a German Case on Managing Animal Health Risks

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Farm Animals in Germany

Cattle	2018	12.1 Mill.
Pigs	2018	22.9 Mill.
Sheep	2017	1.6 Mill.
Laying hens	2017	40.6 Mill.
Eggs	2017	12.1 Billions

The 16 Federal States (Bundeslaender) of Germany with

**15 Tierseuchenkassen
Animal Disease
Compensation Funds**



EU Veterinary fund 2016/ 2017



Comparative table per disease: 2017 allocation VS 2016 amounts (after reallocation) and 2015 payments

	Initial Allocation 2017	Reallocation 2016 (29/11/2016)	Varia tion 2017/ 2016	Payments 2015	Varia tion 2017/ 2015
Total	149,789,000 €	156,523,000 €	-4.3%	147,316,238 €	1.7%
Classical Swine Fever	1,967,000 €	2,553,000 €	-23.0%	2,324,105 €	-15.4%
Avian Influenza	2,048,000 €	2,065,000 €	-0.8%	2,111,848 €	-3.0%
Bluetongue	7,997,000 €	6,730,000 €	18.8%	6,281,078 €	27.3%
Transmissible Spongiform Encephalopathies	9,329,000 €	11,797,000 €	-20.9%	14,115,298 €	-33.9%
Sheep And Goat Brucellosis (B. Melitensis)	9,383,000 €	12,228,000 €	-23.3%	11,798,364 €	-20.5%
Bovine Brucellosis	9,556,000 €	10,312,000 €	-7.3%	10,900,718 €	-12.3%
African Swine Fever	9,638,000 €	7,572,000 €	27.3%	2,662,570 €	262.0%
Salmonella	18,954,000 €	19,956,000 €	-5.0%	15,971,837 €	18.7%
Rabies	24,955,000 €	21,376,000 €	16.7%	16,776,664 €	48.7%
Bovine Tuberculosis	55,962,000 €	61,934,000 €	-9.6%	64,023,864 €	-12.6%

ASF as the sword of Damocles

How to anticipate economic losses?



reduced pork production

compartmentalization



Subventions

Fiscal measures

Mutual funds

Insurances

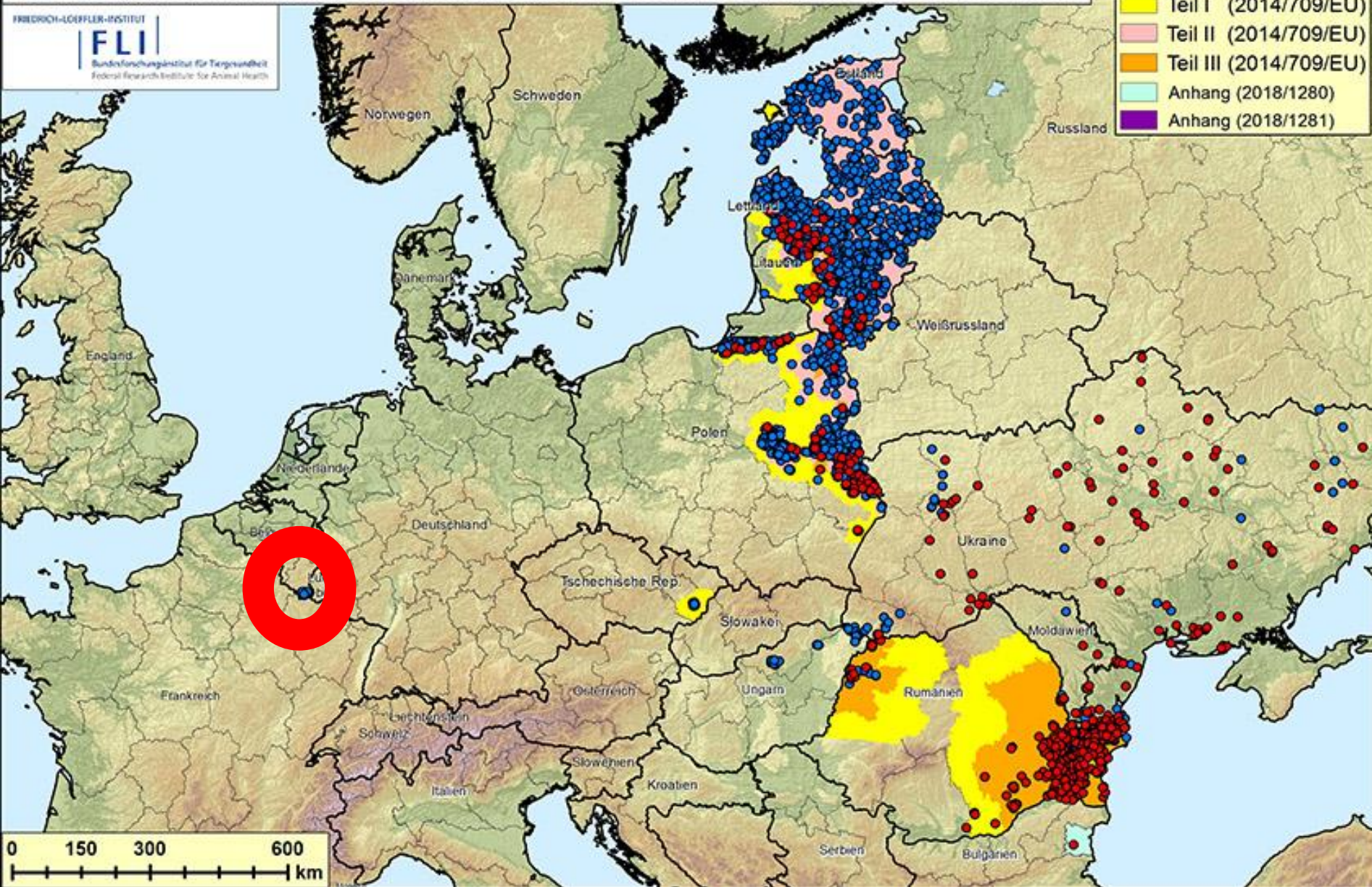


Exportations



Afrikanische Schweinepest im Baltikum, Belgien, Bulgarien, Moldawien, Polen, Rumänien, Tschechien, Ungarn und Ukraine 2018 Datenquelle: ADNS (Stand: 23.10.2018 - 08:47 Uhr); Restriktionsgebiete nach Anhang des Durchführungsbeschlusses 2014/709/EU, 2018/1280 und 2018/1281

FRIEDRICH-LOEFFLER-INSTITUT
FLI
Bundesforschungsinstitut für Tiergesundheit
Federal Research Institute for Animal Health





Different compensation schemes for livestock epidemics

1. Public governmental funds (state budget)
2. Mutual funds, public-private financing (NL, DE)
3. Statutory schemes (NL, DE)
4. Non-statutory schemes
5. Compulsory fund (NL, DE)
6. Cost and Responsibility
Sharing Schemes
7. Voluntary schemes
8. Insurances

Non subsidised/Subsidised

- The current ADCF-systems **DO NOT** cover all costs incurred by farmers:
 - Direct (in some cases farmers contribute/bear costs)
 - Indirect (in all cases farmers or insurances bear costs)

Animal Disease Compensation Germany

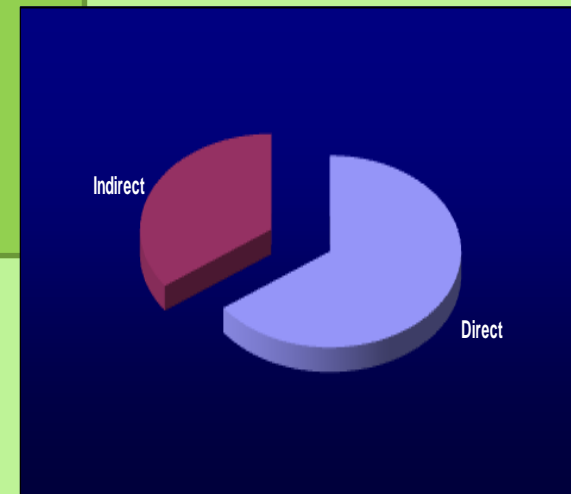
Legal Basis

- Regulation (EU) 652/2014 (repealing Council Decision 2009/470/EC)
- Commission Implementing Decision (EU) 2015/144
- Guidelines for member states for EU funding of veterinary emergency measures
SANCO 11385/2014 Rev 6
- German Animal Health Act of 22.5.2013
- Implementation laws of the Bundeslaender
- Bylaws of ADCF Tierseuchenkassen



Types of Losses and Payment to Funds

- **Direct losses - mainly compensated**
 - Destroyed animals, organisational costs (e.g. culling , disposal, transport)
- Indirect or consequential losses – scarcely compensated, privately insurable
 - Business interruption, losses related to restricted areas, price declines, costs of emergency vaccination etc.
- Ex ante payment - pool building within a sector
- Ex post payment after an outbreak



ADCF Germany

15 ADCF

Tierseuchenkassen
as public law corporations
(**statutory**)

Participation compulsory

ADCF separately for

- Horses, donkeys, mules
- **Bovines**
- **Pigs**
- **Sheep**, goats
- Poultry
- Fishes
- Bees

§ 20 Animal Health Act

Contributions are not
mandatory for

- Horses, donkeys, mules
- Goats
- Fenced game
- Poultry
- Bees
- Fishes

If ADCF cannot be run
economically

**Thus: Compensation payment
100% by government**



Benefits of German ADCF

Benefits

Mandatory core business according to Animal Health Act

In case of disease outbreaks and compulsory culling:
Compensation
Culling costs
Carcass Disposal

Voluntary business according to implementation law of federal state and bylaws

Costs of e.g.:

Carcass disposal
Vaccination programmes
Monitoring programmes
Eradication programmes
Animal health services
Disease preparedness
Preventive measures

What does the ADCF not pay?

- Co-operation of the animal holder in culling, cleaning etc.
- Indirect costs
 - Losses due to delay until restocking
 - Not marketable eggs and animals
 - Loss of earnings in restriction areas

A Business Interruption Insurance (Production Loss Insurance) is recommended as supplement to ADCF

Animal Valuation in Germany

- Assessment of actual market value at time of slaughter/ death
- Competent experts differ between federal states
 - Veterinary officials
 - Sworn experts
 - Teams of experienced independent farmers
- Value influenced by:
 - Current quotation, performance, milk yield, weight, pregnancy , age, breeding values
- Value of animal often assessed by computer program

In case of dispute the animal holder has the right for another assessor and evaluation.



Animal Valuation- Maximum Rates

Maximum rates of compensation
pursuant to § 16 of German Animal Health Act:

Horses	6000 €
Cattle	4000 €
Pigs	1500 €
Fenced game	1000 €
Sheep/ goats	800 €
Poultry	50 €
Bees	200 e per colony
Fishes	20 € per kilogram

ADCF pays for **Animal value**

Example: Turkey Cock

Purchase price:	5.50 € / animal
Price at slaughter:	1.32 € / kg
Target weight (150 d):	21.405 kg
→ Carcass proceeds / Animal	28.25 €

Age of chicks at purchase:	42 days
Max. fattening duration:	108 days
Actual fattening duration:	100 days

Value per animal at day 100 of fattening

$$\begin{aligned} &\text{Fattening days x increase in value + purchase price} \\ &= 100 \times 0.21 \text{ €} + 5.50 \text{ €} = 26.50 \text{ €} \end{aligned}$$

Payment premises

1. True reporting of animals` number
2. Correct and timely payment of contributions
3. Compliance with legislation

If not

- Loss of compensation entitlement
- Partly compensation if minor fault

Costs H5N8 – 2016 / 2017 Lower Saxony

Type of costs	Amount
<i>Number of compensated animals / farms</i>	<i>818 991 / 68</i>
Culling	4 305 521.22 €
Compensation	9 671 308.45 €
Carcass disposal	1 048 551.92 €
Cleaning/ Disinfektion	634 323.85 €
Examinations	25 043.00 €
Vets Sample collection	19 427.25 €
Provision of Gas	170 000.00 €
Total	15 874 175.69 €

Land 6 988 414.84 €
ADCF 8 466 340.09 €

Share of disease outbreak costs

	ADCF	Land
Compensation of animals	50 %	50 %
Culling	50 %	50 %
Carcass disposal	50 %	50%
Cleaning / Disinfection	100 %	-

* First settlement before grant decision of EU-COMM about co-financing

Risk Level	What is the probability of introducing or spreading the disease through the infringement of the law?	Compensation ADCF
0	No probability	100 %
1	Very low probability	90 %
2	Low probability	80 %
3	Average probability	70 %
4		60 %
5		50 %
6		40 %
7	Average to high probability	30 %
8	Very high probability	20 %
9		10 %
10	Highest probability	0 %

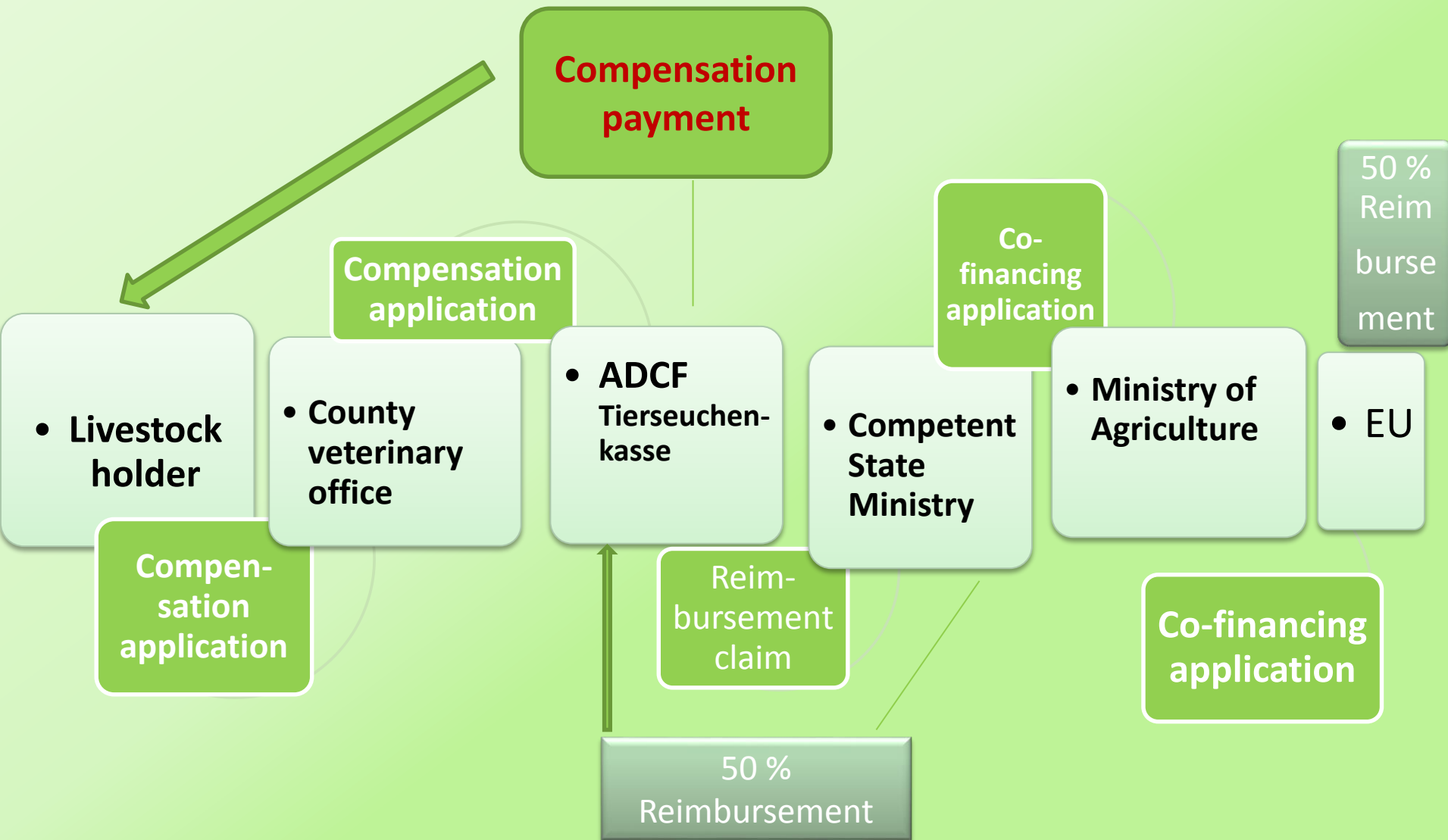
Flow of German ADCF compensation and reimbursement

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Anstalt des öffentlichen Rechts

and reimbursement





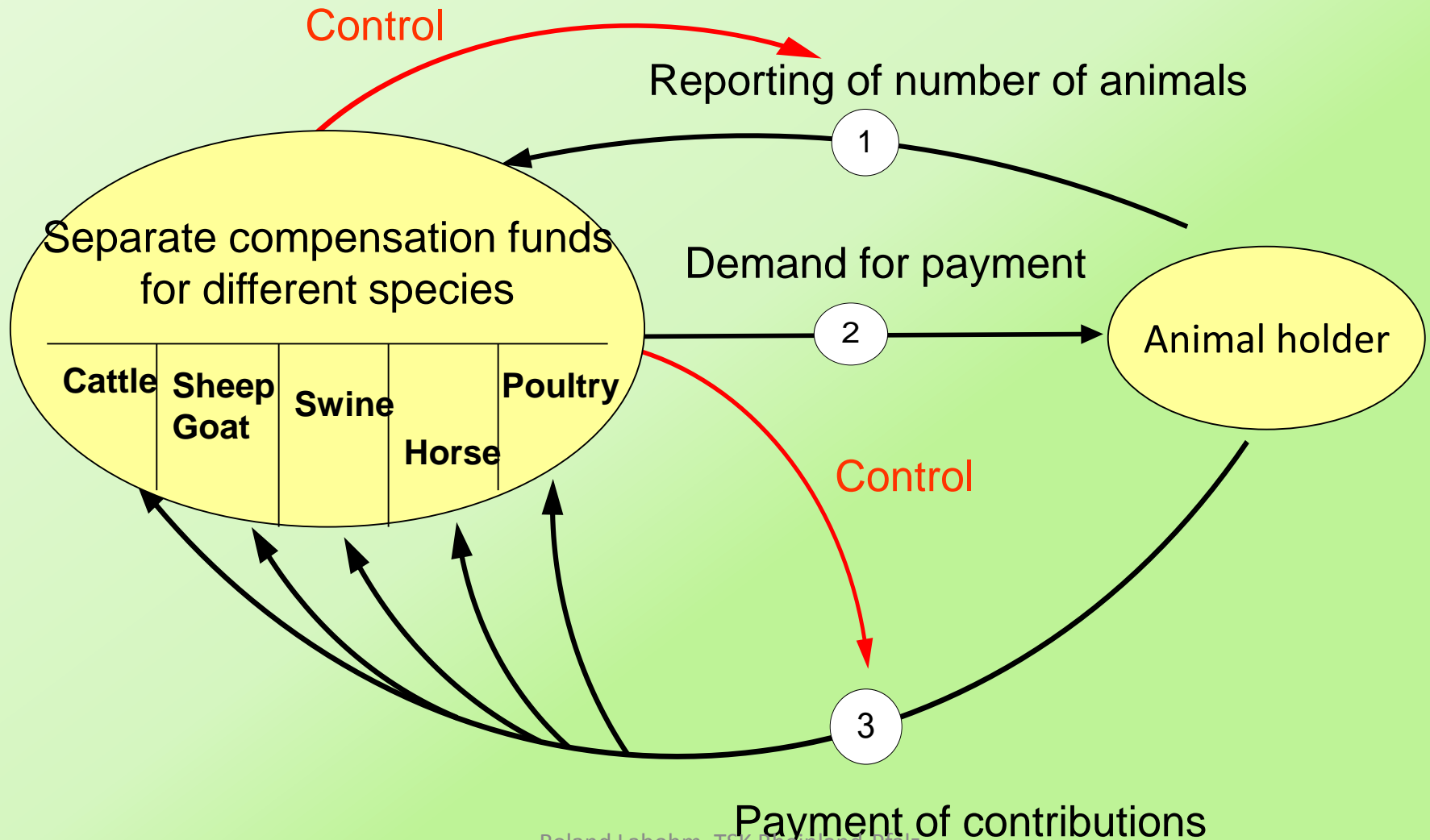
Financing ADCF

- Levies/ contributions of animal Holder
- Contributions of the industry (meat, dairy)
- State subsidies
 - Fixed
 - In disease outbreaks
- Co-financing of EU
- ???

**Ideally, funding is from both public
and private sources**



Collection of Contributions by ADCF Tierseuchenkasse



ADCF Contributions

Species	Lower Saxony 2017	Lower Saxony 2018	Bavaria 2018	Saxony 2018
Cattle	6.50 €	6.50 €	5.70 €	3.30 €
Swine	0.75 €	0.65 €	1.00 €	1.30 €
Sheep, Goat	1.85 €	1.65 €	1.10 €	1.00 €
Horse	1.40 €	1.20 €	1.20 €	5.70 €
Poultry				
• Broiler	0.0274 €	0.0301 €	0.045 €	0.023 €
• Laying hens	0.0418 €	0.0435 €	0.045 €	0.06 €
• Turkey cocks	0.5195 €	0.6890 €	0.28 €	0.10 €
• Turkey hens	0.1104 €	0.1921 €	0.28 €	0.10 €
• Ducks	0.0746 €	0.0780 €		0.10 €
• Goose	0.0746 €	0.0965 €		0.08 €
• Other	0.1095 €	0.0945 €		0.08 €
	0.2162 €	0.2136 €		0.08 €



Calculation of levies

Not according to actuarial mathematics but

- **Need of previous year**
 - For compensations
 - For voluntary benefits
- **Budget**
- **Amount of fund reserves**
- **Epidemic situation**

Calculation of fund reserves

- Epidemiological modelling

Members of Administrative Boards ADCF Germany

- ◆ Animal holders
- ◆ Government representatives
- ◆ Veterinary officials
- ◆ Farmer associations
- ◆ Field veterinarians
- ◆ Representatives of research or investigation offices

Tierseuchenkasse Rheinland-Pfalz



Anstalt des öffentlichen Rechts



ADCF – Pros

- Better prevention - provide incentives for risk-reducing behaviour (enhancing biosecurity, early reporting etc.)
- Avoid risks for State budget - Balance distribution of costs and responsibilities
- Maximise effectiveness and efficiency of eradication and prevention of animal diseases
- Simple and clear rules for financing



ADCF – Pros

- Ensure economic sustainability of farming business
- Coherence with EU policies and EU international commitments (WTO)
- Incentives encouraging from all parties involved

Thank you !!
Any questions ??

Links to websites of all German ADCFs:

www.tierseuchenkasse.de

Rhineland-Palatinate

www.tsk-rlp.de