FRAMEWORK CONTRACT: EVALUATION IMPACT ASSESSMENT AND RELATED SERVICES; LOT 3: FOOD CHAIN

Feasibility study on the revision of Council Decision 2009/470/EC (ex 90/424/EEC) on expenditure in the veterinary field with a view to develop a harmonized EU framework for cost and responsibility sharing schemes for animal diseases

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Final REPORT (with additions)

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Abbreviations

CAHP	Community Animal Health Policy
CEA	Comité des Assurances
CSF	Classical Swine Fever
CRSS	Cost and Responsibility Sharing Schemes
CVOs	Chief Veterinary Officers
EU	European Union
EAGF	European Agricultural Guarantee Fund
FMD	Foot and Mouth Disease
HPAI	Highly Pathogenic Avian Influenza
ISSG	Inter-Service Steering Group
MS	Member State
WP	Work Package

Executive Summary

The EU contributes financially to the prevention, eradication and control of livestock epidemics in MS. This report investigates five different options for replacing the current EU rules for co-financing of emergency measures. These options differ with respect to the approach of co-financing and their impact on emergency measures taken by the MS's. The identified options are:

Option 1: "No change scenario", which preserves the existing legal framework for animal disease direct-losses compensation.

Option 2: EU co-financing rules are maintained, however a maximum percentage for public financial contribution to the farmers is defined, thereby ensuring that they bear a minimum percentage of the direct costs (which could be insurable).

Option 3: Development of an EU harmonized framework for CRSS:

- Option 3.a: establishing an obligation for a gradual introduction of CRSS by all MS's respecting certain harmonized criteria established at EU level.
- Option 3.b: establishing the possibility for individual MS to develop CRSS provided that these schemes comply with EU harmonized criteria while allowing others to maintain the option of getting EU co-financing according to the current rules.

Option 4: Deregulation.

- Option 4.a: to limit EU intervention to cases of catastrophic events;
- Option 4.b: to grant lump sum payments to the MS instead of co-financing.

Option 5: Establishment of a fully harmonised EU CRSS system managed by the Commission for compensating losses due to animal diseases.

For option 3.a and 3.b harmonised criteria at the EU level should be at least:

- obligation of MS to cover certain animal diseases considered as priorities at EU level by the CRSS with compulsory participation of livestock producers;
- objective of the CRSS, i.e. providing efficient transfer of animal health risk from farmers to a CRSS and inducing efficient on-farm risk management through differentiation of contributions and conditions of coverage;
- basic principles for efficient schemes like conditions for incentive compatibility, covered risks and public financial support;
- maximum threshold for public funding;
- WTO compliance.

EU financial contribution to the CRSS developed in the MS (option 3.a and 3.b) could be:

- peace-time support;
- co-financing of **direct losses** (*excluding* business interruption costs). Co-financing of direct losses could follow the lines of the current system of financial compensation.

This public financial support could have the following three main pillars:

- support of prevention and surveillance programmes, e.g. on basis of the livestock numbers covered by a CRSS;
- support to the losses due to animals slaughtered as fixed percentage of the compensation paid to the operator;
- previously agreed flat rates for all other losses of operators currently financed under Council Decision 2009/470/EC. This would be in contrast to the current situation where other direct costs are co-financed on basis of the real expenses incurred, which may lead to inflated costs and complicated procedures. The flat rates would have to be defined at EU level in advance and could be related to the numbers of animals/operators affected etc, taking into account appropriate price indices to reflect reasonable differences between MS's.

The economic impact, likelihood, timescale, magnitude of direct and consequential losses and monetization of impacts of these policy options were evaluated. Special emphasis was given on the feasibility of an **EU harmonized framework for a Cost and Responsibility Sharing Scheme (CRSS)** options 3.a and 3.b. In this CRSS, the deficiencies of the current system as limited incentives for prevention, distortions in favour of high risk areas, partial compensation in case of an outbreak, complex community co-financing rules and the budget risk for the community should be avoided, or at least reduced. A general assessment on the advantages and disadvantages of these options has been made. In addition, co-financing of **indirect/consequential losses** including business interruption costs is briefly assessed on whether it is possible/adequate or not, and if it is, how this can be done. If appropriate, other ways of providing EU financial aid are proposed.

An **overview of the existing systems and mechanisms compensating animal disease** losses is given based on expert consultation of the CVO's of the MS's**.** The present EU regulation for compensating animal disease losses and risk prevention support follows budget lines from both DG SANCO and DG AGRI with different procedures involved. **EU co-financing** is foreseen in the event of an epidemic livestock disease. Council Decision 90/424/EEC allows for co-financing 50% of the costs of compulsory and pre-emptive slaughter and of related operational expenditure (60% FMD). Cost categories eligible for co-financing have recently been specified in more detail in Regulation 349/2005. The actual reimbursements from the Emergency Fund according to the current eligibility criteria in place in the period 1997- 2009 were € 1,109 million, of which 88% was related to the major livestock diseases CSF, FMD and AI. Moreover, analysis revealed that high risk areas were responsible for the majority of the EU contributions in the current system.

Financing schemes related to the non-EU compensated part of animals that are compulsory culled and other costs related to the control and eradication differ between MS's. While some MS's finance the direct losses from the national budget, other MS's have set up some form of statutory public-private financing system. These public-private financing schemes have a compulsory fund structure in which all farmers pay a levy (i.e. Belgium, Germany, Lithuania and The Netherlands). The amount that is payable by the farmer depends mainly on whether or not there were major outbreaks in previous years. In some MS's, a compensation scheme for consequential losses is implemented, either by means of private funding (e.g., a compulsory scheme in Romania), by means of public funding (Austria, Cyprus, Czech, Finland, France, Portugal, Sweden) or by a private-public scheme (Denmark, Latvia, Lithuania). To share the risks between the national government and the sector proportional as well as non-proportional schemes exist.
A widely adopted EU **private insurance scheme** covering all epidemic diseases for all types of livestock is absent. Only a few private insurance schemes exist on the European market to cover the risk of consequential losses from livestock epidemics (e.g. Germany).

CVO's opinion on the different policy options was collected by means of a questionnaire to all 27 MS's. All but 3 responded. All CVO's agreed that it is vital that during an outbreak adequate compensation should be ensured. There was consensus to develop an EU harmonized framework for CRSS. There was less agreement amongst the CVO's in the required financial arrangement; one group suggested a substantial participation of farmers while others suggested a pure public funding structure. The opinions to include or exclude consequential losses differ between the CVO's: arguments in favour of including at least part of them stipulate that during an outbreak farmers might suffer substantial costs due to a standstill period; especially in Densely Populated Livestock Areas farmers might face severe animal welfare and technical problems in case of long-lasting epidemics; arguments that are against mostly point out that these losses are difficult to calculate, a substantial administrative burden is expected and the market losses will become too costly.

Comments of other stakeholders (Copa-Cogeca) were gathered. In their opinion there should be a ceiling of maximum threshold for contribution by farmers, above which governments should bear the risk. The system should comply with WTO criteria and provide peace-time support (vaccinating, vaccine banks, surveillance, operation of bio-security schemes as well as co-financing losses in crisis). All direct and indirect/consequential losses should be covered. Cost-sharing also implies the sharing of responsibility. The private sector and authorities should co-operate at the same level.

The PEST-analysis of the "no change scenario" revealed that there is on all criteria room for improvement. Option 3a (mandatory gradual introduction of harmonised scheme) offers on all included criteria the prospect of improvement, both compared to the default Option 1 and to all other alternatives. Moreover, there are no indications that future developments would dramatically endanger the performance or robustness of this option. As for Option 2 (public-private system) and Option 5 (fully harmonised), they too offer improvement although with less support from all stakeholders involved. Option 3b (voluntary harmonisation)

and Option 4 (deregulation) either do not offer the prospect of major improvements, or have even the risk of decreased performance.

However, the already increasing production costs and competitive pressure from third countries as well as social/cultural differences between MS can reduce the feasibility of an introduction of compensation systems with public-private costs and responsibility sharing in all MS's. The social structure of particularly new MS with a large number of 'backyard' farmers might hamper the realisation of public-private cooperation in disease compensation and control. Whether it is worth the effort to include backyard and non-commercial holdings in the CRSS has to be based on epidemiological, economic as well as political arguments.

Based on these criteria a **proposal for a CRSS** is presented. It consists of the following items:

- **Risk Sharing between MS and the EU:** introduction of a Bonus-Malus system (BM), which alternately rewards (B) or penalizes (M) claiming behaviour. The Bonus is an increase in reimbursement percentage which is given if no claim is made in the previous year. Malus is a discount in the reimbursement percentage if there was a claim in the previous year. As an incentive for adequate containment of an outbreak, a differentiation in Malus is suggested based on the size of the outbreak. If the outbreak is contained effectively, there will be a minimal reduction of future reimbursement. If the outbreak is moderate the Malus should be larger. Moreover, when there is a large outbreak, the Malus should be substantial.
- **Reduction of reimbursement in case of large outbreaks**: a reduction in reimbursement is proposed if the size of the outbreak/claim exceeds a predefined amount.
- A **Public Private Partnership** (PPP) within MS to co-finance the losses not paid by the EU Veterinary Fund. It is a formal relation *within* a MS between *government* and *farmers* and *other stakeholders* to cover the direct costs by means of a compulsory public statutory compensation scheme. Cost sharing between participants can be proportional or non-proportional. For individual participants contribution can be risk based (sector and/or implementation of preventive measures).

The **proposed CRSS was evaluated**. The criteria on which the alternatives were evaluated were:

a) To **achieve a more prevention-driven and incentive oriented approach** of the EU financial aid for the control and eradication of animal diseases. Effective preventive measures taken by the MS will be rewarded by a lower incidence of outbreaks and as such a higher reimbursement rate in case of an outbreak, whose impact will be more limited. Implementing a PPP to finance the MS's share means communication with stakeholders since it involves not only cost sharing but also responsibility sharing. PPP are best organized in different MS to be able to adequately implement national and regional differences. These PPP's can stimulate their stakeholders to implement preventive measures by premium differentiation and through the possibilities for MS to subsidize the implementation of these measures. If the system is organized such that in case of a small outbreak there will not be a reduction in reimbursement class, there will be an incentive for the MS to timely report it.

b) To **balance the distribution of costs and responsibilities** between authorities, EU institutions and farming sector. An agreement about responsibility sharing has to be reached before the details on a cost sharing programme are determined. However, it is a highly complex matter: it is unlikely a *one size fits all* solution but there is a need for a systematic approach.

c) To maximise **effectiveness and efficiency on prevention and eradication** of animal diseases. The proposed CRSS takes into account the differences between MS in risk and impact of outbreaks of contagious diseases. The BM system rewards MS's with low risk profiles by the fact that the percentage of the direct costs reimbursed is higher since the occurrence of outbreaks is less frequent. Also the fact that there is a difference in the drop in reimbursement class depending on the size of the outbreak differentiates between MS's that have small outbreaks compared to MS's that have to cope with more substantial outbreaks.

d) Establishing **simple and clear rules** for EU co-financing of losses due to animal diseases and ensuring consistency and coherence of the several compensation mechanisms established at EU level. The CRSS program is relative easy to implement because it is based on claim history. Moreover, it is also straight forward to monitor the class status of each MS by the EU. In countries which already implemented a PPP a differentiation in premium paid by livestock owners is often based on the livestock sector and farm type. In the case of implementing the CRSS in MS's in which there are a large number of holdings with backyard farming or non-commercial holding, the CRSS is faced with challenges (registration of livestock owners, to find incentives to motivate compliance to regulations and to collect levies cost effectively). Whether it is worth to include backyard and non-commercial holdings in the CRSS has to be based on epidemiological, economic and political arguments. In many MS, farmers have no say in the decision making process for preventing and managing outbreaks of contagious diseases. Modulation of control strategies based on the different interests of livestock sectors and in consultation with them might be a way to raise awareness and commitment.

At present there are large differences between MS's in how they have organized the financing of direct costs related to outbreaks of contagious diseases. In case the BM system with a compulsory PPP would be introduced, there would need to be a transition period for MS's to adapt to this new situation. To enable this transition, temporary support from EU might be needed. Also, the extent to which farmers suffer large consequential/indirect losses due to an outbreak differs between MS's. Large differences between MS exist in, for example, livestock density of production areas or export position. Therefore we would suggest excluding the coverage of consequential losses from the EU Veterinary Fund. There must be a clear investigation into how MS's can be supported in the event they want to establish a scheme that supports farmers that suffer from consequential losses. Such a scheme might improve the willingness of farmers to participate in a PPP

to cover the MS part of the direct costs. The coverage of consequential/indirect losses adjacent to the CRSS could introduce a kind of virtuous circle with two directions bottom-up and top-down, in three steps:

1. Farmers could be subsidized for their participation in the mutual insurance to cover the consequential/indirect losses; this participation is also/alternatively included amongst the factors considered to differentiate levies, resulting in a reduced financial contribution.
2. Governments are motivated to encourage the participation of the primary sector in this mutual (and in the PPP, if not compulsory), by an additional bonus recognised at EU level after reaching a targeted percentage.
3. In terms of specific objectives, the EU benefits from this increased participation as the two levels of the CRSS are more interdependent and all actors involved would allow it function as a single system, that would be more integrated and, as a consequence, more "shared": the benefits will consequentially stream to all MS's, in particular in the medium and long term.

An integrated CRSS can enhance the acceptability and feasibility of the CRSS in comparison with an approach in which only direct losses are covered. It is likely to result in a more prevention-driven and incentive oriented approach, a balanced distribution between costs and responsibilities, more effective and efficient prevention and eradication and economic sustainability of farming business.

e) To **prevent distortion of competition between MS's**. The possible distortion of competition introduced by the current different compensation schemes in place in different MS is negligible compared with other differences in taxation, income, etc. that exist in the EU. The proposed BM system is an improvement over the previous system in that it rewards MS that do not have large and costly outbreaks of epizootics and puts a large part of the costs on those MS that have these large outbreaks. Having a large concentrated livestock sector in a MS has infrastructural benefits for farmers in the periods where the area is not affected with outbreaks of contagious diseases. These benefits become major drawbacks in periods of outbreaks. Although the risk for the EU budget is assumed to be less than in the current situation, there may arise a situation (such as a large and costly outbreak in several MS at a time) in which a large claim on the EU budget may occur. Part of this is cushioned by the lower reimbursement in case the claim exceeds a fixed amount.

f) To **avoid risks for the EU and MS budgets**. Given the irregular occurrence of major outbreaks of livestock epidemics, the budget planning of the Veterinary Fund within the present annual framework remains as a major challenge. There is the risk of extending the annual budget, which has to be borne by the EU budget. However over a longer period the fluctuation is more limited. It is possible to re-insure this remaining risk, but this will probably be a costly option. A reduction of reimbursement to MS in case of a large outbreak decreases the total costs for the EU budget substantially, however the MS are faced with substantial additional costs in a period of crisis. This might have a

negative impact on the feasibility of the system. Solutions in which a strategic reserve must be maintained should be considered.

g) Ensure **economic sustainability** of farming business in the EU and to ensure **consistency** with the animal health, animal welfare and food safety policy objectives as well as broader EU policies (climate change, sustainability) and international commitments of the EU (WTO).

An **economic analysis of the proposed CRSS** was performed, consisting of two parts. A *historical* analysis of the budgetary consequences for the EU in the case the proposed CRSS would have been implemented, revealed that the total costs for the EU Veterinary Fund would be substantially lower in the prospective situation. The main reason for the estimated differences is that MS's with large outbreaks would receive a smaller reimbursement compared to the current situation. Moreover, in the new situation FMD is treated equal as other epidemics (reimbursement of 50% instead of 60%).

The CRSS is also analysed by means of a *normative modelling approach* in which the impacts of its tentative modalities are analysed jointly as well as separately. Three groups were identified: (1) MS's with densely populated livestock areas (NL), (2) Old MS's with mainly medium or sparsely populated livestock areas (FI), (3) New MS's with mainly medium or sparsely populated livestock areas (RO).

For three selected diseases (CSF, FMD and HPAI) the assessment consisted of (1) an estimation of the probability of occurrence of outbreak/epidemic, (2) an estimation of the size of outbreaks, and (3) an estimation of future costs and reimbursements.

All MS's would be rewarded with a higher reimbursement class only if the Bonus element is taken into consideration. This system would be more advantageous for those MS's with infrequent outbreaks and thus less claims from the Veterinary Fund. If only the Malus is taken into consideration, all MS's would be penalised, depending on their exposure. A reduction for ongoing large outbreaks would also reduce the total costs for the Veterinary Fund. MS's with large claims would be reimbursed more often at lower levels.

h) **Stakeholders' consultation** with participation of livestock sector and different parts of the livestock production chain. Different components of the CRSS were evaluated: the BM system and a PPP to cover the MS part of direct losses due to disease outbreaks and excluding/including indirect/consequential losses in a CRSS. The five participating organisations in the workshop show diverse and complementary views. The *processing and trade industry* is more in favour of the more advanced options for reconsideration of the compensation system for animal diseases, whereas the representatives of *farmers* and *breeders organisations* are more conservative (no BM, no compul-

sory PPP). However, the last two organisations are in favour of adding indirect/consequential losses to a CRSS.

In **conclusion,** the proposed CRSS has substantial benefits compared to the current system. However its implementation requires careful preparation, negotiation and trust building in which EU, MS, and farmers should be involved.

Although a compulsory gradual introduction of the CRSS by all MS's respecting harmonised criteria fixed at EU level appears to be sound and preferred by MS's, there are numerous modalities of such system possible. The merit of the modalities should be that stakeholders are encouraged to implement more preventive systems and more effective eradication strategies. To what extent each CRSS option would help to achieve the objectives pursued by the initiative is not the object of this study. The costs in the prospective situation will be overestimated since the effects of potential additional preventive measures due to a CRSS are not quantified in the current analysis. In the envisaged CRSS the deficiencies of the current system should be avoided, or at least reduced. This holds particularly for issues such as limited incentives for prevention, distortion in favour of high risk areas, partial compensation in case of outbreak, complex co-financing rules, budget risk for the EU.

Based on the findings in this report four **recommendations** are formulated**.**

Recommendation 1: Harmonising EU reimbursement rate. Council Decision 2009/470/EC allows for co-financing 50% of the costs of compulsory and pre-emptive slaughter and related operational expenditure; however, for FMD a co-financing of 60% is allowed. Harmonising the EU co-financing to one default level will ensure a more consistent and coherent compensation scheme.

Recommendation 2: Risk based EU compensation. A more comprehensive step is to reward and/or penalize the preventive measures taken by the MS's by deviating from the default reimbursement rate. Such approach has usually a positive effect on claim statistics, as it stimulates to be more eager in preventing outbreaks that would lead to the loss of bonus.

The BM system rewards MS's with low risk profiles by the fact that the percentage of the direct costs reimbursed is higher since the occurrence of outbreaks is less frequent. Also the difference in the drop in reimbursement class depending on the size of the outbreak differentiates between MS's that have small outbreaks compared to MS's that have to cope with more substantial outbreaks.

The CRSS program is relative easy to implement because of its simplicity. Moreover, it is also straight forward to monitor the class status of each MS by the EU. We suggest starting at the present percentage covered by the EU (50% compensation): MS's with a low incidence of disease outbreaks will gradually move up and the MS's with a higher incidence will move down.

If in case of a small outbreak there will not be a reduction in reimbursement class, there will be an incentive for MS's to timely report an outbreak. In order to obtain support by MS's for this revision the range of the reimbursement rates should be limited (approximately 10% points). More extreme values will decrease the demands on the Veterinary Fund on the long run (affecting the potential additional preventive measures taken) but will lack a wide-range support in all MS's.

In summary, it is recommended that EU compensation to the MS for epidemic livestock diseases should become more risk based. This could be envisaged by introducing one or more incentive based modalities (i.e., bonus and Malus elements, and/or reduction in reimbursement rate for large claims).

Recommendation 3: Share of responsibility and costs between public and private sector. First, a credible arrangement for sharing responsibility between government and relevant stakeholders has to be established before decisions on cost sharing can be properly debated and defined. Sharing responsibility should be targeted such that the total risk is reduced by increasing the biosecurity and minimizing the effect of a possible outbreak. The envisaged PPP is a tool to provide incentives for farmers and thus stimulates behavioural changes for risk factors involved. The PPP should impose standards towards for example the maximum number of animal contacts with other farms, farm hygiene practices, the proper usage of hygiene barriers in place, reservation of e.g. 5% free places to cover temporary animal surpluses, and implementation of quality assurance schemes.

Second, the PPP should manage a fund structure in which all farmers pay a levy to the compensation scheme. The PPP can stimulate their stakeholders to implement preventive measures by premium differentiation to the fund and through the possibilities for MS to subsidize the implementation of preventive measures. Determining an appropriate base for cost sharing is a complex matter and it is unlikely that there will be a "one size fits all" solution but there is a need for a systematic approach. Therefore PPP's are best organised in the different MS to be able to adequately implement national and regional differences but based on a EU set of basic principles and requirements.

Costs and benefits of running the national PPP differ between MS's. In MS's with infrequent and marginal risks of large disease outbreaks, the transactions costs of implementing and maintaining a complex levy system may be disproportionate to the possible benefits. Therefore a compulsory PPP for all MS's will only be supported if the level of complexity of the PPP is risk based. MS with marginal risks would only be required to implement a PPP in which responsibility would be shared enforcing a kind of quality system and an ex post levy to cover the non-EU funded part of the costs in the unlikely event of an outbreak. If a mandatory PPP is not supported at EU level, a voluntary system should be accompanied by mechanisms to incentivise it.

The PPP will take a relative long time before full establishment and thus a transition period must be foreseen to adapt to this new situation, especially for a MS in which at present the direct costs are fully borne by the government (10-15 years is the minimum period that should be considered); temporary support from EU might be needed (for example to finance initial costs).

Recommendation 4: MS's flexibility in expanding coverage by including part of the consequential/indirect losses. The substantial benefits of introducing coverage of these losses adjacent to the CRSS are as follows:

- The uptake of a PPP by farmers could be improved by connecting the PPP with a coverage of (part of) the consequential/indirect losses (this coverage is outside the review of Decision 2009/470/EC for the CRSS, typically it should be voluntary and could be a mutual or a commercial insurance). It seems appropriate to include this compensation for farms where all animals were culled as well as farms within surveillance and movement restriction zones.
- It would facilitate the implementation of preventive measures since it opens the possibility of premium differentiation based on the implementation of such measures.

Coverage of the consequential/indirect losses is not a part of the proposed CRSS. However, possibilities to cover (part of) these costs can facilitate the introduction of a CRSS, especially those costs that are due to business interruption of farms in which animals are culled or farms in a Surveillance or Movement restriction zone. Hence, only farms located in the movement restriction zones should be eligible for compensation of (part of these) consequential/indirect losses. Premiums in such schemes paid by farmers should be risk dependent. Support by MS or EU by subsidizing the premiums paid to this mutual could increase the participation of farmers to this fund.

A major drawback to correctly determine the consequential/indirect losses is the fact that they are difficult to calculate and most of the time only can be estimated after the outbreak ended. A solution for this might be that beforehand a fixed sum per production unit (e.g. dairy cow, sow or pig place) per day is set by the farmer and the mutual or commercial insurance fund. We suggest to make arrangements for farms culled that are confronted with loss of income during the time the farm is not fully repopulated and in production and confronted with additional start-up costs. Also arrangements could be made for farms in a Surveillance or Movement restriction zone during the stand still period confronted with consequential/indirect losses, mainly due to the fact that they are not able to freely move animals or livestock products. It seems neither favourable nor feasible to compensate for losses due to trade restrictions. The reasons for this are that these costs cannot be determined explicitly and the whole sector in a MS is confronted with these losses at the same time, i.e. also farms outside the zones with movement restrictions. Insurance would mean that farmers in effect would pay for their own losses. Although in major market-disruptive outbreaks, farmers outside areas with movement restrictions might benefit from temporally higher prices.

There is currently an on-going investigation as to whether art. 68 of Council Regulation 73/2009 (establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers) can be used to allow premium subsidy of farmers by MS. Note that in the current situation MS's may provide financial compensation to farmers for economic losses caused by the outbreak of animal diseases by way of financial contributions to mutual funds (Article 70, EU, COM(2008) 306).

1. Introduction

1.1. The Cost and Responsibility Sharing Schemes (CRSS)

The new Animal Health Strategy for the EU (2007 – 2013) pursues the objective of developing a modern animal health framework including an EU harmonised Cost and Responsibility Sharing Scheme (CRSS) for animal diseases. Based on the results of the Evaluation of the Community Animal Health Policy (CAHP) (2006), preparatory work for the establishment of the main EU objectives and the criteria for developing CRSS took place in the **Working Party of Chief Veterinary Officers** (CVOs).

The specific **objectives** for a CRSS defined by the working party are described as follows:

1) To achieve a more prevention-driven and incentive oriented approach of the EU financial aid for the control and eradication of animal diseases. This specific objective will be achieved by the following operational objectives:
    - encouraging the implementation of preventive measures such as bio-security measures;
    - making operators to bear an adequate part of the losses due to animal diseases.
2) To balance the distribution of costs and responsibilities between competent authorities, EU institutions and the farming sector and stimulating the development of common approaches to be applied by these actors developing a consultation mechanism between cost sharing partners, particularly during a crisis.
3) To maximise effectiveness and efficiency on prevention and eradication of animal diseases, encouraging preventive behaviour and early reporting of animal disease outbreaks and maximizing the effectiveness and flexibility of implementation of CRSS at national or regional level.
4) Establishing simple and clear rules for EU co-financing of losses due to animal diseases and ensuring consistency and coherence of the several compensation mechanisms established at EU level.
5) To prevent distortion of competition through:
    - establishing harmonised criteria for the development of CRSSs;
    - establishing harmonised and adequate thresholds for public resources contributing to the systems;

6) To avoid risks for the EU and the Member States' (MS's) budgets through:
   - establishing proportionate thresholds for public resources linked to the categorisation of the diseases or other relevant criteria, e.g. the ability of farmers to affect the risk of the diseases occurring (in which case the private sector should make some contribution);
   - ensuring long term stable financing for disease control, especially for emergency situations of high priority diseases.

7) Ensure economic sustainability of farming business in the EU through:
   - maintaining a system of EU co-financing;
   - enabling an efficient risk-transfer from the farmers to the CRSS;

8) To ensure consistency with the animal health, animal welfare and food safety policy objectives as well as broader EU policies (Common Agricultural Policy, climate change, sustainability) and international commitments of the EU (WTO).

(Source TOR for feasibility study)

1.2. Objectives

In this study the **feasibility and the possible social and economic impacts of an EU harmonised cost and responsibility sharing scheme (CRSS)** are assessed.

This CRSS can be part of the overall strategic objective of the EU to support a **more prevention driven and incentive oriented approach of the EU financial aid for the control and eradication of animal diseases.**

1.3. Options

For this evaluation five different options have been identified that differ with respect to the approach of co-financing and their impact on emergency measures taken by the MS to control and eradicate animal disease outbreaks. The 5 identified options are:

Option 1: "No change scenario", which preserves the existing legal framework for animal disease direct-losses compensation.

Option 2: EU co-financing rules are maintained, however a maximum percentage for public financial contribution to the farmers is defined, thereby ensuring that they bear a minimum percentage of the direct costs (which could be insurable).

Option 3: Development of an EU harmonised framework for CRSS:

- Option 3.a: establishing an obligation for a gradual introduction of CRSS by all MS'srespecting certain harmonized criteria established at EU level.
- Option 3.b: establishing the possibility for individual MS to develop CRSS provided that these schemes comply with EU harmonised criteria while allowing others to maintain the option of getting EU co-financing according to the current rules.

Option 4: Deregulation.

- Option 4.a: to limit EU intervention to cases of catastrophic events;
- Option 4.b: to grant lump sum payments to the MS instead of co-financing.

Option 5: Establishment of a fully harmonised EU CRSS system managed by the Commission for compensating losses due to animal diseases.

Criteria for option 3

For option 3.a and 3.b harmonised criteria at the EU level should be at least:

- obligation of MS to cover certain animal diseases considered as priorities at EU level by the CRSS with compulsory participation of livestock producers;
- objective of the CRSS, i.e. providing efficient transfer of animal health risk from farmers to a CRSS and inducing efficient on-farm risk management through differentiation of contributions and conditions of coverage;
- basic principles for efficient schemes like conditions for incentive compatibility, covered risks and public financial support;
- maximum threshold for public funding;
- WTO compliance.

EU financial contribution to the CRSS developed in the MS (option 3.a and 3.b) could be:

- peace-time support;
- co-financing of ***direct losses*** (*excluding* business interruption costs)**.**

Co-financing of direct losses could follow the lines of the current system of financial compensation. This public financial support could have the following three main pillars:

- support to prevention and surveillance programmes, e.g. on basis of the livestock numbers covered by a CRSS;
- support to the losses due to animals slaughtered as fixed percentage of the compensation paid to the operator;

- previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC. This would be in contrast to the current situation where other direct costs are co-financed on the basis of the real expenses incurred, which may lead to inflated costs and complicated procedures. The flat rates would have to be defined at EU level in advance and could be related to the numbers of animals/operators affected etc. Definition of flat rates should take into account appropriate price indices to reflect reasonable differences betweenMS's.

A general assessment of the advantages and disadvantages of these options has been made. For options 3.a and 3.b an in-depth feasibility assessment is carried out.

In addition, co-financing of ***indirect/consequential losses*** including business interruption costs is briefly assessed on whether it is possible/adequate or not, and if it is, how this can be done. In text box 1 the working definitions used in this study for direct and indirect/consequential losses are presented. If appropriate, other ways of providing EU financial aid are proposed.

Text box 1

Direct costs and consequential losses during an outbreak of a highly contagious livestock disease

During an outbreak and control of a highly contagious livestock disease, farmers, government and other stakeholders are confronted with different direct and consequential losses. When evaluating the costs of an epidemic or an outbreak of contagious disease different components can be distinguished:

- *Direct costs related to the control of the epidemic.*

These include the costs for the infrastructure for the control of the epidemic, the costs associated with culling and destroying of infected and contact animals, the costs associated with disinfection, destruction of feed and eggs on detected farms, and the compensation and vaccination costs. These costs are co-financed by the EU (Council Decision 2008/470/EC).

Besides these direct costs, additional indirect/consequential losses occur during an outbreak. The following consequential losses can be determined:

- *Costs related to movement restrictions affecting the primary sector.*

Farms culled during the epidemic are confronted with loss of income during the epidemic and during the time the farm is not fully repopulated and in production. Also, they are confronted with additional start-up costs.

Farms in a Surveillance or Movement restriction zone during the stand still period are also confronted with indirect losses, mainly due to the fact that they are not able to freely move animals or livestock products.

The total livestock sector is affected since due to an epidemic the national and international market access for animals of susceptible species and their products is restricted. After the last outbreak it takes time until all the restrictions in trade are lifted and the situation from before the epidemic is restored.

- *Ripple effects.*

The effects from outbreaks are felt upstream and downstream along the livestock value chain – breeding, feed production, input supply, slaughter, processing, final sale and consumption.

- *Spill-over effects.*

During outbreaks tourism and other services in a MS might be confronted with reduced incomes as well. Since other than typical agricultural production is becoming more important for the rural economy these spill-over effects are likely to become a large part of the total epidemic costs.

A major drawback of consequential losses is the fact that they are difficult to determine and most of the time only can be estimated after the outbreak ended and the situation is back to business as usual.

2. Methodology and activities

The overall strategic objective of this project is to **support a more prevention driven and incentive oriented approach** of the EU financial aid for the control and eradication of animal diseases. Therefore five different options are examined. To achieve this objective, the activities are organised into four interdependent work packages (WP) described below. In addition there is a fifth WP, the organising managerial task.

The **focus** of the project is on **major epidemic livestock diseases** in which financial contributions of EU to MS's are foreseen in case of an outbreak. Foot and Mouth disease (FMD), Classical Swine Fever (CSF) and Highly Pathogenic Avian Influenza (HPAI) serve as an example.

The relation between the different WP's is given in figure 2.1.

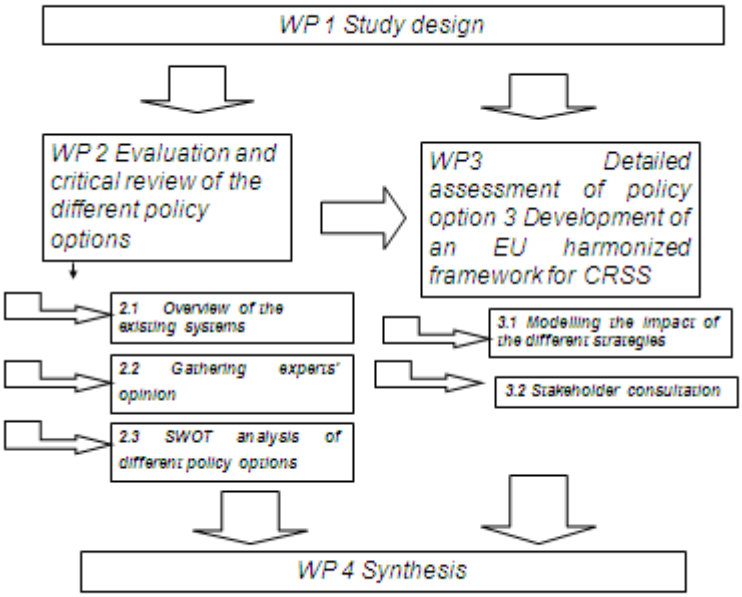


Figure 2.1 Relation between the different WP's in the study

In this study the following WP's can be distinguished:

Work package 1. Study design:

Deliverable: Inception report and oral presentation

Activities: development of a detailed planning of the study, including methodology to be used, planning of stakeholders' consultation and data sources to be used.

Work package 2. Evaluation and critical review of the different policy options

Deliverable: Description of the baseline scenario for the development of CRSS based on an overview of the existing systems and mechanisms for compensating animal disease losses, including mechanisms developed so far to encourage preventive behaviour by farmers.

The baseline scenario is described based on an overview of the existing systems and mechanisms for compensating animal disease losses, including mechanisms developed so far to encourage preventive behaviour by farmers.

Activities: The following tasks are defined:

Task 2.1: Overview of the existing systems and mechanisms compensating animal disease losses

Deliverable: an **overview** that covers the presence, market penetration and take-up of insurance for animal diseases and also other possible existing systems (including non-statutory diseases) and the degree of risk determination used when setting premia.

First a literature review of available studies in this field is performed. Subsequently a questionnaire is prepared to make sure the data are up-to-date and to collect lacking data from EU Member States (send to the CVO's). MS's were also asked about the use of the possibility of co-financing private-public funds (mutual funds) aimed at supporting farmers for certain losses (Council Regulation (EC) No 73/2009). An overview of the situation regarding compensating schemes in the different MS's as well as a general overview of the state-of-the-art livestock disease insurance schemes within the EU is given.

Task 2.2: Gathering experts' opinion on policy options

Deliverable: Experts' opinion on the different policy options

The following sub-tasks are defined:

Task 2.2.1: A questionnaire addressed to Governments and policy makers:

Approached to contribute to the study are:

- All MS's CVO's,
- EU Commission officials (members of the ISSG and policy makers DG SANCO and DG AGRI)
- Copa Cogeca (farmers' organisation)

Questionnaire

In order to gather the vision of the experts of the project team, CVO's and key stakeholders on the different options, a questionnaire was developed. The questionnaire consisted of three parts:

1. general questions regarding the different policy options, whereby the degree of agreement must be rated on a 1-5 points scale + motivation;
2. open questions regarding the different policy options (among others about social, environmental and economic impacts of the options and relevant forces influencing its feasibility), and
3. specific questions focusing on stakeholder opinions concerning crucial conditions for option 3.a and 3.b (the EU harmonised CRSS). The full text of the questionnaire can be found in Appendix 1.

The questions in Part I of the questionnaire were based on the eight criteria the Working Party of Chief Veterinary Officers identified which CRSSs need to comply with. The respondents were asked to include a short motivation of the given scores.

Part II and Part III of the questionnaire consisted of open questions and were more specific, often asking an opinion instead of a knowledge-based answer.

Workshop ISSG

Part I of the questionnaire was discussed with the ISSG members and members of DG SANCO and DG AGRI, in a workshop held on the 8th of July 2010.

In the same workshop, the discussion about the questions of Part II and III of the questionnaire was started with the ISSG members as a basis for a further PEST analysis.

CVOs

After the ISSG workshop, the questionnaire was adjusted. The CVO's of EU MS'swere asked to complete the extended questionnaire. Of the 27 MS's all but 4 responded.

Key stakeholders

Key stakeholders are selected in consultation with DG SANCO. It included representatives of the major live-stock sectors (represented by Copa-Cogeca) to contribute to the study by filling in the questionnaire.

Task 2.3: PEST analysis of different policy options

Deliverable: PEST analysis of different policy options

Based on the results of the pre-feasibility study and the results of 2.1.1, the different policy options described in chapter 1 are evaluated in a PEST analysis.

Activities:

The approach used consisted of the following steps:

- Arranging results from questionnaires: In appendix 5, detailed results of questionnaires regarding the choice options are presented. These results were used to re-arrange and summarize them for (1) each choice option and (2) for each criterion from the questionnaire. Moreover, the current 'No change' scenario was used as a basis for comparison. In this way, all choice options could be compared on whether they would be an improvement or a worsening compared to the current system;
- Strengths and Weaknesses: Based on the Comparison Table, the Strengths and Weaknesses of the different choice options were derived. This was done by the expert team on the basis of consensus. Again, these Strengths and Weaknesses are relative to the current 'No change' scenario;
- Opportunities and Threats: Thereafter, several future scenarios were defined, which could have an impact on the performance of the respective choice scenarios. On the basis of these scenarios, Opportunities and Threats of the different choice options were estimated by the expert panel, again on the basis of consensus;
- Final conclusions: finally, the different choice options were judged by the panel of experts in view of (expected) future developments.

Work package 3. Detailed assessment of policy option 3 Development of an EU harmonized framework for CRSS

Deliverable: Detailed assessment of policy option 3 Development of an EU harmonized framework for CRSS. For a detailed assessment of esp. policy option 3 Development of an EU harmonized framework for CRSS two sub-tasks are defined:

Task 3.1: Modelling the impact of the different strategies esp. option 3

This consisted of two steps:

1) Analysis of the results of the BM system using historical data.
2) A modelling approach to estimate the impact of future outbreaks (epidemiological and economical risk analysis).

For the different steps in the used BM the following assumptions are made:

- a small outbreak with total costs of 1 million € or less leads to a reduction in the reimbursement percentage for the next year of 1 %;
- a medium outbreak with total costs exceeding 1 million € but smaller than 9 million € leads to a reduction of the reimbursement percentage of 5 %;
- a large outbreak with total costs exceeding 9 million € leads to a reduction the reimbursement percentage of 10 %. Also it will cause a reduction of the reimbursement in the present claim of 10% for direct costs exceeding 9 million €.
- (These assumptions are derived from the historical distribution of direct costs and claims to the Veterinary Fund.)

Ad 1) Analysis of the results of the BM system using historical data.

The analysis based on historical data was done using the data on payments from the veterinary fund to MS's in the period 1997-2009. From these the direct costs of different outbreaks were calculated. These outbreak data were used to calculate payments for the hypothetical situation that the BM system was put in place in 1997 and functions until 2010. The actual reimbursement is compared with the reimbursement under the proposed system. Also the reimbursement percentage at the end of the evaluation period is determined.

Ad 2) A modelling approach to estimate the impact of future outbreaks (epidemiological and economical risk analysis).

Three connecting issues are evaluated:

- An epidemiological risk analysis of outbreaks of the selected diseases;

- An economic risk analysis;
- Modelling the costs of the different financing options.

Task 3.1.1: Epidemiological risk analysis

Method

In this study it was important to build on epidemiological expertise across the whole spectrum of both former List-A and List-B diseases, in order to get both the broad picture and some potentially important details right. In a recent project of the OIE (2004) we have used the mathematical modelling approach to estimate the consequences of introductions of CSF, FMD and HPAI in relevant livestock areas in six EU member states. The results obtained in that project provide a stepping stone for the work here.

Part 1: an epidemiological risk analysis is carried out concerning the risk of introduction of FMD, CSF and NAI in Finland, Romania and the Netherlands.

Because of the short time frame in which the study had to be finished, it was not possible to perform a full quantitative risk analysis, this would have taken several years for the three MS's and the diseases of concern.

On the basis available, officially reported and verifiable data from the European Union, using accumulated data from the Animal Disease Notification System (ADNS) and from the World Organization of Animal Health (OIE) using accumulated data from Handistatus II (for the period up till 2005) and WIHAD (for the period from 2005 onwards), an expert opinion was formed. In an operation sense, the risk of introduction of the diseases of concern in the different MS's was estimated on the basis of true frequency of occurrence of outbreaks in the past 20 years.

Part 2: Estimating the magnitude of size of future outbreaks

Based on an evaluation of the relevant literature that is available on the consequences of outbreaks in the Netherlands, Finland and Romania, estimation was made on size and economic consequences of future outbreaks.

Task 3.1.2: **Economic risk analysis**

Epidemiological outbreak data as presented in the previous paragraphs are the basis of the economic calculations. The economic risk analysis builds on previous economic studies carried out both for former List A diseases and List B diseases.

The size of the cost factors for MS's under study are based on EUROSTAT, a literature review complemented if necessary expert assumptions. In this study the consequential losses are excluded since they are not part of the CRSS. Detailed input parameters used to make the economic parameters are described in appendix 7.

Cost factors considered include:

- value of the animals culled under depopulation and welfare control measures;
- direct costs of organisational aspects comprising the following main components: screening, surveillance, cost for enforcement of implemented control measures, treatment (vaccination if applicable or culling). Cost of enforcement of control measures in Surveillance and Movement restriction zones were available for the last outbreaks of FMD in the Netherlands, for other diseases and other countries these were missing. Therefore these costs have been estimated. In this estimation, price level and population density in the different MS's were used.

The default control strategy assumed comprises culling and disinfection of infected farms and implementation of a surveillance and movement restriction zone. For the Netherlands the contingency plan foresees additional measures:

- ring culling in a circle of 1 km around infected farms;
- for FMD and CSF this ring culling strategy is replaced by a vaccination-to-live strategy after 1 week.

To get an insight into the economic aspects of the different options for the three cases of the identified MS's, a mathematical model that was developed and used extensively by members of the expert team has been updated (Meuwissen et al. 2003, Van Asseldonk et al., 2003, and Van Asseldonk et al. 2006). The approach gives insight into the following impacts of the policy options:

- Economic impact;
- Likelihood - uncertainty and sensitivity analysis;
- Timescale - time affecting the scale of impacts;
- Magnitude – significance of each impact;
- Direct costs of the options;

- Quantification / Monetization of impacts;

A sensitivity analysis in which all the parts of the proposed CRSS are evaluated separately is performed to get insight into the impact of the different parts.

The **goal** of this task was to integrate (1) *risk analysis;* (2) *risk management insights*; and (3) *capital and insurance market knowledge*, in order to:

- complete and integrate the various partial studies and understandings that currently exist in the field of livestock risk financing;
- transfer theoretical designs into practically feasible instruments; and
- extend cost calculations for stakeholders from loss costs to costs of risk financing.

Task 3.2: Stakeholder consultation

To evaluate the outcomes and prioritise the different options a further expert consultation was carried out.

Work package 4 Synthesis

In this work package the different findings work packages are combined. Based on the findings during the research conclusions and recommendations are added.

3. Review of the existing systems and mechanisms compensating animal disease losses

In this chapter an overview of the existing systems and mechanisms for compensating animal disease losses is given. It consists of three paragraphs:

- In 3.1 the EU regulation for compensating animal disease losses, risk management support, and the payments from the EU Emergency Fund to the MS's (period 1997-2009) are described.
- In 3.2 the actual situation regarding compensating schemes for animal disease losses in the various MS's is described. For this, the input given by the MS's is used.
- In 3.3 an overview is presented that covers the presence, market penetration and take-up of insurance for animal diseases. Also other possible existing systems (including non-statutory diseases) and the degree of risk determination used when setting premia are briefly discussed.

3.1. Present regulation in the EU for compensating animal disease losses and risk prevention support

Compensation of animal disease losses

Community measures related to outbreaks of epidemic livestock diseases are currently funded under budget lines from both DG SANCO and DG AGRI with different procedures involved. These may include co-financing of veterinary emergency measures such as the slaughter of animals (direct losses) and exceptional market support measures that provide support to farmers/breeders affected by restrictions imposed by the veterinary authorities (indirect/consequential losses). Expenditure in the veterinary field is financed by EAGGF (Guarantee Section) funds. The "Veterinary Fund" is administered by DG SANCO and refers to the funding of veterinary emergency measures allocated under budget line 17.0403 (as of 2004) entitled "emergency fund for veterinary complaints and other animal contaminations which are a risk to public health." Council Decision 90/424/EEC of 26 June 1990 on expenditure in the veterinary field brings together all Community financial measures for the eradication, control and monitoring of animal diseases and zoonoses. It lays down the relevant procedures governing the Community's financial contribution. Co-financing is foreseen in the event of an epidemic livestock disease; typically the MS in which the disease outbreak occurred submits a claim and the Commission then determines the actual reimbursement according to the eligibility criteria in place. Council Decision 90/424/EEC allows for co-financing 50 percent of the costs of compulsory and pre-emptive

slaughter and of related operational expenditure (this co-financing is 60 percent for Foot-and- Mouth Disease).

In Council Decision 90/424/EEC the type of losses covered are described, these are:

- Costs of compensation to owners the market value of compulsory slaughtered animals or destroyed eggs.
- Costs associated with the compulsory slaughter of animals.
- Costs associated with the destruction of carcasses and/or eggs.
- Costs associated with cleaning, disinfecting, and disinfection of holdings.
- Costs associated with the destruction of contaminated feed stuffs and/or milk.
- Costs associated with the destruction of contaminated equipment.
- In connection with vaccination, eligible expenditures.

In the case of serious market disturbances due to restrictions imposed by the veterinary authorities in the case of outbreaks of animal diseases like FMD or CSF, exceptional market support measures can be introduced by the Commission in order to support the farmers affected by these restrictions. The cost categories that are eligible for co-financing have recently been specified in more detail in Regulation 349/2005.
Exceptional market support measures are implemented under the authority of DG AGRI.[i] Such measures can only be introduced once MS's have introduced the veterinary measures necessary to stamp out epizootic diseases, "only to the extent and for the duration strictly necessary to support the market concerned."

Risk management support

The legal background of risk management support to farmers comes from several parts of the EU legislation:

> Art. 32,1 EU Treaty defines: "The common market shall extend to agriculture and trade in agriculture products".
>
> Following Art.33,1: "The objectives of the common agricultural policy shall be: (a) to increase agricultural productivity by promoting technical progress and by ensuring the national development of agricultural production and the optimum utilisation of the factors of production, in particular labour".
>
> In the "Community guidelines for state aid in the agricultural and forestry sector 2007-2013 (OJ C319 of 27.12.2006) IV.L. Aids in the livestock sector, (109) the Commission will declare State Aid in the livestock sector compatible with Article 87 of the Treaty if it fulfils all conditions of Article 16. The

Commission will not authorize State aid towards the costs covered by this chapter in favour of large companies."

In general, the EU legislation always points out that allowance for support is limited to small farmers or "small and medium-sized' enterprises (Commission regulation (EC) No 1857/2006 of 15.12.2006 on the application of Articles 87 and 88 of the EC Treaty). However, not all aids to compensate for damage to agricultural production or the means of agricultural production are allowed (V.B. OJ C 319). Allowances must be interpreted "restrictively" (V.B.102) and in case of aids for combating animal diseases (V.B.4.) under general rules. (V.B.4.1.) Especially, "only diseases which are a matter of concern for the public authorities, and not measures for which farmers must reasonably take responsibility for themselves may be the subject of aid measures"((132(b)). The objectives of the aid measures should be either 132 c I,ii,iii: "Preventive or compensatory or combined".

The Commission regards (V.B.5. 138ff) "aids towards the payment of insurance premia" as useful. (139 a) "In many instances, insurance is a most helpful tool for good risk and crisis management". Therefore, and in view of the often reduced financing possibilities of farmers, the Commission has a positive attitude towards State aid for insurance in favour of primary production (farmers). For arable farming, the Commission has even declared: (V.B.3.1. 126) "in order to further improve risk management, farmers should be encouraged to take out insurance wherever possible. Therefore, from a certain moment in the future onwards, adverse weather compensation should be reduced to farmers who have not taken out insurance for the product concerned. Only if a MS can convincingly show that, despite all reasonable efforts made, affordable insurance for a given type of event or product is not available, the Commission should waive this requirement."

Further rules regarding risk management are laid down in Art. 70-71 of Council regulation (EC) No. 73/2009 (Health Check). For example, MS's have to submit an annual report on the implementation (Art.71.10.).

3.1.1. Payments from the Veterinary Fund

In table 3.1 and figure 3.1 an overview is given of the contribution to the MS from the Emergency Fund. Only MS's that received a contribution in this period from the Emergency Fund are mentioned. The total costs in the period 1997- 2010 are € 1, 109, 05 million, of which 88% is related to the major livestock diseases CSF, FMD and AI. Measures related to Blue tongue control account for a large part of the remaining costs.

All payments from the Veterinary Fund	Payments by the Veterinary Fund related to FMD/CSF/AI

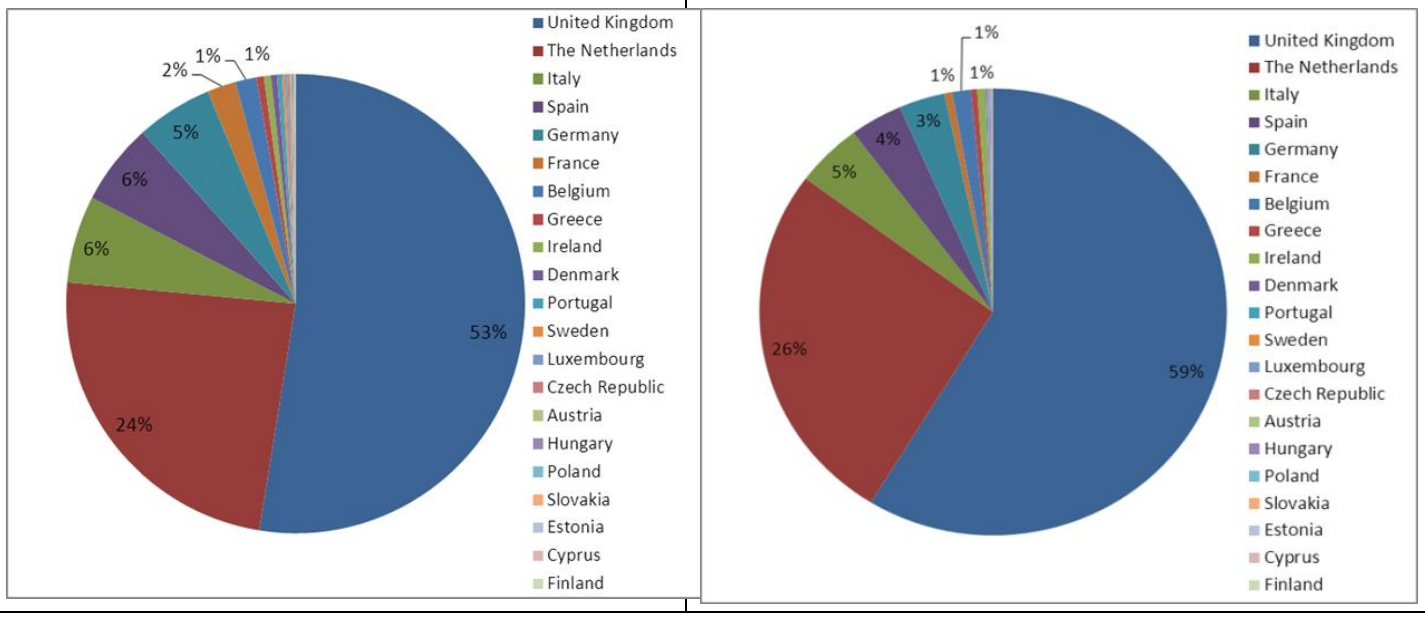


Figure 3.1 Distribution payments by the EU to the MS from the Emergency Fund (1997-2010)

As can be seen from table 3.1 and figure 3.1 the payments are not equally distributed amongst the different MS's: the outbreaks of CSF and FMD especially in the UK and the Netherlands required large payments from the Emergency Fund.

Table 3.1: Total payments (in Million €**) by the EU to the MS's from the Veterinary Fund (1997-2010)** [1]

Country	All diseases	FMD/AI/CSF
United Kingdom	**582.70**	**576.55**
The Netherlands	**265.56**	**249.44**
Italy	**68.09**	**45.18**
Spain	**63.84**	**36.05**
Germany	**59.56**	**31.25**
France	**22.31**	**5.33**
Belgium	**16.50**	**12.48**
Greece	**5.89**	**4.44**
Ireland	**5.42**	**5.42**
Denmark	**4.81**	**0.55**
Portugal	**3.87**	**0.05**
Sweden	**2.09**	**0.00**
Luxembourg	**2.07**	**1.59**
Czech Republic	**1.76**	**0.51**
Austria	**1.71**	**0.00**
Hungary	**1.00**	**1.00**
Poland	**0.85**	**0.85**
Slovakia	**0.48**	**0.48**
Estonia	**0.35**	**0.00**
Cyprus	**0.19**	**0.19**
Finland	**0.04**	**0.00**
Total	**1109.05**	**971.244**

1 *Including 2.0 M€ payments in 2010 related to outbreaks in previous years)*

(Source data DG SANCO)

3.2. Overview of existing systems and compensating mechanisms in the EU MS's

In Table 3.2 an overview of the present existing systems and compensating mechanisms in the EU MS's is given. This overview is based on the results of the questionnaires sent to the EU MS's. Of the 27 sent questionnaires, 24 returned and the remaining countries after repeated requests did not respond. The results from the returned questionnaires are presented in Table 3.2 and provide an overview of characteristics of financing schemes of the individual EU Member States covering direct and (part of) consequential losses due to contagious animal diseases. The full responses of the individual MS's are presented in Appendix 2.

Table 3.2: Existing systems and compensating mechanisms in the EU MS's

	Country	Scheme to cover direct losses	Compensation	
			Direct losses	Consequential losses
1	Austria	Public	Fully compensated	Partly (Tierseuchenkasse)
2	Belgium	Compulsory levy scheme/ private	FMD, CSF : 100% AI 90%	No compensation (competence of regional authorities)
3	Bulgaria	Public	Compensated but amount unclear /not determined	No compensation
4	Cyprus	Public	Fully compensated	(Partly) compensated)
5	Czech Republic	Public	Fully compensated	Full public compensation
6	Denmark	Public	Full compensation + 20% when whole herd is slaughtered	Cattle and swine: compulsory levy scheme to cover 80% of losses
7	Estonia	Public	Fully compensated	No compensation
8	Finland	Public	Fully compensated	Public up to 100%
9	France	Public	Fully compensated	Partly compensated/ private solidarity fund
10	Germany	Organized by Bundesland public/private	100% (50% covered by the Federal state)	Not covered but private insurance (Ertragsschadenversicherung) possible
11	Greece	No information received	No information received	No information received

Table 3.2: Existing systems and compensating mechanisms in the EU MS's (continued)

	Country	Scheme to cover direct losses	Compensation	
			Direct losses	Consequential losses
12	Hungary	No information received	No information received	No information received
13	Ireland	Public (for TB partly levies)	Fully compensated	No compensation
14	Italy	Partly public, partly private insurance	Fully compensated	Private insurance scheme, supported by public funding
15	Latvia	Public	Fully compensated	Public-private compensation (no detailed information)
16	Lithuania	Public-private	Compensated	Public-private compensation
17	Luxembourg	Public	Fully compensated	Private insurance scheme for consequential losses and the state supports the payment of the farmers paid premiums with 50% (small uptake)
18	Malta	No information received	Fully compensated	No compensation
19	Netherlands	Public-private	Fully compensated	Private insurance schemes; (ad hoc public financial aid)
20	Poland	Public	Fully compensated	Information not clear
21	Portugal	Public	Fully compensated	Compensated
22	Romania	Public	Fully compensated	Private compensation
23	Slovakia	Insurance (voluntary) scheme	Insurance (voluntary) scheme	Insurance (voluntary) scheme
24	Slovenia	Public	Fully compensated	No (ad hoc public financial aid)
25	Spain	Public / voluntary private insurance scheme	Fully compensated	Voluntary private insurance scheme

Table 3.2: Existing systems and compensating mechanisms in the EU MS's (continued)

	Country	Scheme to cover direct losses	Compensation	
			Direct losses	**Consequential losses**
26	Sweden	Public	Fully compensated	Some diseases fully covered, broilers excluded (private insurance possible)
27	United Kingdom	Public	Fully compensated	Not covered (ad hoc financial aid)

Currently in all MS's (except Slovakia according to their answer in their questionnaire) the values of the animals that are compulsory culled and other costs related to the control and eradication of an epizootic diseases are compensated by means of a public or public-private financing vehicle. While some MS's finance the direct losses from the national budget, other MS's have set up some form of statutory assessment system. The amount that is payable by the farmer depends mainly on whether or not there were major epidemics in the previous years.

As Table 3.2 illustrates, most MS's finance the **direct losses** entirely from the national budget. Only in a few MS, e.g. Belgium, Germany, Lithuania and The Netherlands, the animal production sector is contributing to the funding for compensation of direct losses. These public-private financing schemes have a compulsory fund structure in which all farmers pay a levy.

In Germany the fund is established by the Bundeslander, which draws up the detailed rules of the application. The program is run by an administrative council that decides the level of the levy etc. The administrative council is made up of farmer and ministry representatives. The compensation payments are made from the available funds and the Ministry of Agriculture will pay for the costs if the fund runs out of money. The levy is only used to co-finance the EU veterinary measures following a disease outbreak and thus only pays for culled animals under EU Veterinary measures. No compensation is paid to farmers in surveillance zones. The Lander and the levy fund each pay half of the remaining non-EU compensated part. In Belgium the levy can vary depending on the level set by the government and is differentiated on basis of species and farm size. With respect to pig production in addition the premium is differentiated on basis of farm structure (i.e., open (purchase of pigs) versus closed pig production). Note that differentiation between species and farm structure is determined post epidemic and based on occurred losses per species but also subjective criteria.

In some Member States, a compensation scheme for (part of the) **consequential losses** is implemented, either by means of private funding (Romania (compulsory)), by means of public funding (Austria, Cyprus, Czech, Finland, France[1], Portugal, Sweden) or by private-public participation (Denmark, Latvia, Lithuania).

In Slovakia a (voluntary) insurance scheme to compensate direct and indirect losses exists.

Few *private insurance schemes* exist on the European market to cover the risk of consequential losses from livestock epidemics. Those that do exist are either extensions of general livestock insurance policies or specific policies of limited insurers and mutual insurers. Many standard livestock insurance policies in Europe assure farmers for animal losses as a result of a number of perils, but some have been extended, sometimes as an option, to cover at least a part of consequential losses from epidemics. Most general livestock insurance schemes cover death and emergency slaughter due to illness, but also the risk of accident, theft, contamination of products, fire and storm and are in most policies amenable for pooling. The additional consequential loss coverage in case of epizootic livestock diseases have one of the following contract specifications: 1) is based on a proportion of the insured sum of the value of the livestock, or 2) is based on the period with business interruption or 3) is based on the actual losses (a typical business interruption coverage).

3.3. Compensation schemes and insurance

General characteristics of compensation schemes

Some studies have already thought out the characteristics of agricultural insurance schemes in the MS's and worldwide (Koontz et al., 2006). The main findings are summarized below (focused on livestock insurance).

Protection against losses of livestock farmers is organized by statutory compensation schemes (state owned or state controlled *public funds*; calamities or mutual funds with levies) or by ad-hoc payments. Sometimes there is no state established system; only *private insurance* can be purchased.

[1]For France this is mainly restricted to exceptional circumstances and that not all sorts of consequential losses are covered.

Characteristics of *public funds*:

Public funds have the following characteristics:

- Public funds guarantee a reliable protection for all farmers;
- The catastrophes and disaster protection is state guaranteed, there are no financial capacity problems and no need for reinsurance protection;
- Compensation only for direct losses;
- Compensation only for farmers for the culling of herds following formal state advised acts;
- No compensation of farmers where the farm is situated in restriction zones; no compensation for consequential losses;
- Limited input and incentives for loss prevention measures;[2]
- No individual risk adjusted contribution or claim settlement possible.

Levy funds

In several countries levy funds are established to cover direct and sometimes part of the consequential losses of outbreaks of epidemic livestock diseases. The risk financing is based on a levy system. Risk financing by means of a levy system is based on pooling over time within the sector. Payments to the fund can be organised through up-front payments (deposit) or through assessment payments after an epidemic, or both. These latter systems have no annually fixed levies. The government will finance the compensation payments in advance. The input of the government will however be repaid over the following years. Therefore, after an epidemic, the levy is set according to the amount that the government paid in advance for the sector. Note that the levy can and in most cases will also vary between livestock species.

In case of co-financing to complement the public part, the amount that is financed by the sector can be proportional or non-proportional, or both. If risks are shared between the sector and the national government by means of a proportional contract (i.e., pro-rata contract) the levy is specified as a fraction of the coverage. With non-proportional contracts, the national government indemnifies only claims in excess of a particular threshold.

[2] Prefeasibility study, chapter 3.4. p31

Characteristics of *private insurance*:

Private insurance schemes for animal diseases have the following characteristics:

- Compensation possible for direct and consequential losses;
- Individual risk designed contracts for farmers possible;
- Protection against business interruption and loss of income;
- Incentives for loss prevention; insurance protection only for farmers that fulfil stringent sanitary standards and are monitored by dairies or pig control units;
- Insurers have specialized staff for individual risk adjusted premium and claim settlement;
- Mutual insurance companies can combine the advantages of mutual funds and insurances;
- Freedom of contracting, no compulsory schemes;

However there are a few major drawbacks with respect to private insurance:

- In most MS's, private livestock insurance is not developed;
- There is limited interest of the insurance industry to provide this kind of insurance to the live-stock sector;
- In case of a disaster due to an epidemic of a major livestock disease there is a problem of disas-ter coverage: reinsurance for these kind of risks is only limited available;
- Relative high premiums because of tax and administration costs.

3.4. In summary

Financing schemes related to the non-EU compensated part of animals that are compulsory culled and other costs related to the control and eradication costs differ between MS's. While some MS's finance the direct losses from the national budget, other MS's have set up some form of statutory public-private financing system. These public-private financing schemes have a compulsory fund structure in which all farmers pay a levy (i.e. Belgium, Germany, Lithuania and The Netherlands). The amount that is payable by the farmer depends mainly on whether or not there were major outbreaks in previous years. To share the risks between the national government and the sector proportional as well as non-proportional schemes exist.

In some MS's, a compensation scheme for consequential losses is implemented, either by means of private funding (e.g., a compulsory scheme in Romania), by means of public funding (Austria, Cyprus, Czech, Finland, France, Portugal, Sweden) or by a private-public scheme (Denmark, Latvia, Lithuania). A widely adopted EU private insurance scheme covering all epidemic diseases for all types of livestock is absent. Only a few private insurance schemes exist on the European market to cover the risk of consequential losses from livestock epidemics (e.g. Germany).

4. Gathering experts' opinion on the different policy options

4.1. Assessment on the five different policy options

To evaluate the characteristics of the five different policy options, the opinion of the different MS's, the ISSG steering group and policy makers from DG SANCO and DG AGRI, and response of the Copa-Cogeca was gathered. The response of MS's and Copa-Cogeca was gathered by means of an e-mail response to the questionnaire described in appendix 1. The response from the ISSG members and members of DG SANCO and DG AGRI was gathered during a workshop held in Brussels. Appendix 6 presents the detailed responses of the respondents. These responses were re-arranged and summarized for (1) each choice option and (2) for each criterion. The current 'No change' scenario was used as a reference for comparison. In this way, all choice options could be compared on whether they would be an improvement or a worsening compared to the current system.

In Table 4.1, the results of the MS's are summarized with regard to the mentioned policy options and criteria. For Option 1, the average (point) results are presented (which can range from 1 (minimum, - score) to 3 (maximum, + score); hence, 2 points means a neutral judgement by the experts. For all other options, the deviations from the Option 1 score is presented; hence, a positive value indicates a more favourable judgement and a negative value indicates a less favourable judgement.

For the description of the scores/results, the following criteria were used:

- Values (averages) for Option 1 between 1.5 and 2.5 were regarded as a more or less neutral judgement, scores above 2.5 were regarded as a strong point, values below 1.5 were regarded as a weak point;
- Values (differences) for the other options larger than 0.7 were regarded as strong points (compared to the default Option 1), values lower than 0.7 were regarded as a comparative weak point.

Table 4.1: Results from MS's expert opinion on strong and weak points of the different policy options

		Option 1	Option 2	Option 3a	Option 3b	Option 4a	Option 4b	Option 5
		No change	EU co-financing with max %	EU harmonised CRSS gradual introduction	EU harmonised CRSS or 'No change	De-regulation - catastrophic events	De-regulation-lump sum payment-	Fully harmonised CRSS managed by EC
	Criterion	Av	Dev	Dev	Dev	Dev	Dev	Dev
1	**Prevention driven and incentive oriented**	1.5	0.6	1.0	0.6	0.0	0.0	0.9
2	**Balance the distribution of costs and responsibilities**	1.5	0.5	1.2	0.7	0.0	0.2	1.1
3	**Effectiveness and efficiency on prevention and eradication**	1.7	0.4	1.0	0.6	-0.1	-0.2	0.7
4	**Simple and clear rules**	2.1	0.5	0.5	-0.2	-0.5	-0.4	0.4
5	**Prevent distortion of competition between MSs**	1.7	0.2	0.4	0.0	-0.3	-0.4	0.5
6	**Avoid risks for EU and MS budgets**	1.7	0.5	1.0	0.4	-0.1	-0.1	0.8

Note: for Option 1 the average (Av) results are presented, for all others the deviations compared to Option 1 (Dev).

Evaluation of Table 4.1 shows the following:

Option 1 is valued neutral (value 2) to a little weak (values below 2), particular with regard to criteria 1 and 2 (Table 4.1.). Hence, with regard to Option 1 there is room for improvement on all criteria included.

Option 3a appears to have several strong points compared to Option 1, particularly with regard to criteria:

- 1 Prevention driven and incentive oriented,
- 2 Balance the distribution of costs and responsibilities ,
- 3 Effectiveness and efficiency on prevention and eradication and
- 6 Avoid risks for EU and MS budgets besides these.

Also on criteria 4 and 5, Option 3a is considered more favourable compared to Option 1.

Option 2 and **Option 5** also have positive differences compared to Option 1 on all criteria. This holds particularly true for criteria 1, 2, 4 and 6 for Option 2, and for criteria 1, 2, 3 and 6 for Option 5. Option 5 is favourable compared to Option 2 on all (but one) criteria. These positive differences of Option 2 and 5 are smaller than the differences of option 3a.

Option 3b appears all-in-all more or less similar to Option 1: for criteria 1, 2, 3, and 6 some positive differences can be observed, however criterion 4 **Simple and clear rules** is a small comparative weakness of this option compared to option 1.

Option 4a and **Option 4b** both have on all criteria 3 to 6 (small) negative differences, hence comparative weaknesses, whereas for the criteria 1 and 2 the differences are (close to) zero.

The findings for MS's experts are in accordance with the findings for the ISSG steering group and policy makers from DG SANCO and DG AGRI as well as and the response of Copa-Cogeca.

On criterion 5 (**Prevent distortion of competition between MS's**) particular attention should be paid, since all options score relatively moderate to negative on this criterion: the average value for Option 1 is 1.7 (hence: neutral to weak) and the differences of the other options are slightly positive (e.g. 0.4 for Option 3a) to slightly negative (e.g. -0.4 for Option 4b). Hence, regardless the final choice, particular attention should be given to this aspect.

In terms of choice making, it seems obvious from Table 4.1 that, compared to the current option 1 (no change), improvement is possible. Hence, a change of system in general has a positive potential. In this respect, **Option 3a** (EU harmonised frame-work CRSS with gradual introduction) has the highest potential: this option has higher scores on all criteria with particular comparative strengths on criteria:

- 1 Prevention driven and incentive oriented,
- 2 Balance the distribution of costs and responsibilities ,
- 3 Effectiveness and efficiency on prevention and eradication and
- 6 Avoid risks for EU and MS budgets besides these.

Also **Option 2** (EU co-financing rules maintained with maximum public percentage) and **Option 5** (Fully harmonised CRSS managed by EC) is supposed to bring about improvements on (nearly) all criteria, however to a lower extend compared to Option 3a. Option 3b, Option 4a and Option 4b all have some comparative weaknesses compared to Option 1, which are not compensated for by other criteria, hence a choice for these options would not bring about much improvement compared to the current situation.

4.2. Detailed assessment of policy option 3a

4.2.1. Response of Member States

In the questionnaire the 27 MS's are also asked to answer more detailed questions concerning the policy options 3.a and 3.b. In this section a synthesis of the different responses is given (the detailed responses of the individual MS's are described in appendix 4).

Minimum harmonisation of criteria

All MS's agreed that the diseases covered by a CRSS should be harmonised—at least the epizootic diseases FMD, CSF, AI and NCD should be included. There should be an efficient risk transfer to the CRSS but also a proportional risk sharing between all cost sharing actors. Some MS's also mentioned the inclusion of diseases with a major zoonotic impact like BSE, Rabies and Bovine tuberculosis. The MS's consider vital that during an outbreak of a disease covered by the CRSS, irrespective of the stage of the outbreak, adequate compensation should be ensured.

There is less agreement amongst the MS's regarding the extent of public funding in a CRSS: one group of MS's suggest a *substantial participation* of farmers in the CRSS while others suggest that public *funding up to 100%* should be possible. Also differences occur between MS's whether participation by farmers in a CRSS should be compulsory or voluntary. They agree that voluntary or compulsory participation should be harmonized between the MS's. In case of participation by farmers, the contribution of the individual farmers should be risk based and preventive measures should be supported.

Peace-time support or co-financing losses in times of crisis

All MS agree that there always should be support in times of a crisis. Opinions differ in relation to peace time support. Members in favour of this peace time support would like to include costs of exercises related to outbreak management, costs related to control and surveillance, as well as eradication (vaccination) programs, and cost made by farmers for taking preventive measures. The MS's that do not see added value of peace time support mention the fact that these costs are difficult to calculate and largely consist of administrative burdens. Financing mechanisms that are mentioned for preventive measures are single farm payments and CAP measures.

Ways of EU support for direct losses

Two parts of compensation for direct losses are distinguished, namely firstly compensation for animals culled during an outbreak as well as other costs related to the outbreak and secondly compensation for costs related to taking preventive measures and surveillance. Several MS's mention the hurdle of administrative procedures related to the current practices of compensation of the direct losses. They propose a harmonised system in which culled animals are valued at market prices and the additional direct costs as a fixed percentage of the value of the culled animals (flat rates). Compensation of these costs should be based on livestock numbers.

Which losses compensated

The MS's seriously disagree whether consequential losses should be compensated in a CRSS. A majority of 12 MS's are against compensation of direct and consequential/indirect losses in a CRSS. Some MS's mention that other financing mechanisms like national programmes or the CAP should be used for financing consequential losses. A group of 5 MS's are in favour of including consequential/indirect losses in a CRSS. Slovenia, who is in favour of including the consequential losses, uses the argument that especially for a small country it is likely that a very large part of the livestock sector will be affected by the cost of an outbreak and as a consequence the future of the livestock sector will be seriously threatened.

Arguments *pro* including at least part of the consequential losses stipulate that during an outbreak farmers confronted with movement restrictions might suffer substantial costs due to a standstill period (especially in Densely Populated Livestock areas farmers might face severe animal welfare and technical problems). Some MS's state that there is a rationale for compensating consequential/indirect losses that farmers are confronted with due to measures taken by the government. This is to support the sustainability of farms that would otherwise suffer problems with business continuation. They fear for moral hazards to occur on those farms when the outbreak is long-lasting.

Arguments *contra* including consequential losses mostly relate to the fact that the consequential losses are difficult to calculate and a substantial administrative burden is expected. When market losses would be included in the compensation of the consequential losses, these losses will become too costly. The majority of the MS's oppose the idea of including consequential losses in a CRSS, most on the technical argument that the losses are difficult to calculate, losses will differ substantially between MS's and it would be too big of a challenge to make rules for compensation that can be easily harmonised and controlled. This poses a risk of an administrative burden and fraud. Suggestions are made to make arrangements nationally to cover consequential/indirect losses by insurance (which premiums might be subsidised). In this case it should be clear that distortion of competition is avoided.

Other ways of providing EU financial aid

Most of the MS did not comment on this issue. Those that did suggested that direct support to on-farm biosecurity measures might be supported by the CAP budget.

4.2.2. Response of Copa-Cogeca

The full response of Copa-Cogeca is in Appendix 4. Here is only a selection of those arguments that are considered either additional to other respondents or strongly emphasized by the respondent.

Minimum harmonisation of criteria

In the view of Copa-Cogeca there should be a ceiling of maximum threshold for contribution by farmers. Above that ceiling governments should bear the risk. Copa-Cogeca foresees that risk premiums to cover extreme losses will be too high for farmers to bear. To avoid trade distortion and unfair competition with third countries, the system should be in compliance with WTO criteria. In WTO regulations, risk schemes are approved if the own-risk of the farmer is at least 30% of the total cost. This minimum percentage of own-risk for farmers is still considered by Copa-Cogeca too high for farmers. This however depends on the details of the cost-sharing scheme, e.g. what costs are eligible.

A reliable CRSS system is considered important for the EU's international reputation. On such matters, any system in place in the EU should be fully recognised by third countries and should not affect competition rules at international level. It would be useful to explore CRSSs already in place in third countries.

Besides farmers, other actors might be at risk for the introduction and spread of a disease. This risk might be outside the control possibilities of farmers or government. In the opinion of Copa-Cogeca society should be ready to share responsibility for eradication failures related to such agents.

Peace-time support or co-financing losses in times of crisis

In the view of Copa-Cogeca it could be both:

- Peacetime: for vaccinating against crucial diseases, vaccine production and storage, surveillance, operation of bio-security schemes;
- Outbreaks: co-financing of all costs explained beforehand. This should also include consequential costs e.g. market problems as a result of emergency vaccination, etc.

Which losses should be compensated?

Besides the direct losses, consequential losses should be compensated as well. These include business interruptions, marketing problems due to emergency vaccination, losses for farms located in the restriction zones, et cetera.

Regarding compensation of consequential losses

As a general comment, Copa-Cogeca states that all costs borne by the farmer to get back in business should be covered. Some examples of support mentioned are:

- Payment per animal lost at current market prices;
- Payment per kg/l/number of production lost (meat, milk, eggs, animals, etc.) at current market prices, or compensation for price drops;
- Per diem payments for income lost during the time of business operation;
- Costs of cleaning, disinfections, vet, etc.;
- Replacement of feed, manure, straw bedding, etc., and farm equipment destroyed during the outbreak;
- Costs of restocking (getting used to new breeds, etc.);
- Cost of monitoring and surveillance measures, as well as costs of biosecurity measures in place.

It should be considered that these costs could also be incurred outside of protection/surveillance zones.

According to Copa-Cogeca, consequential cost can be determined since prices are widely monitored, available and can be determined by neutral bodies.

Moral hazards can be prevented by making all actors financially responsible for disease prevention and control. This should include the processing industry, dairies, slaughterhouses, retail, animal traders, veterinary practitioners, etc., but also operators outside of agriculture, such as tourism businesses and nature reserve organisations. It is important that these costs are made visible in future cost-sharing schemes.

General remark concerning a CRSS

Cost-sharing should also mean responsibility sharing. In other words, this would mean that the private sector and authorities co-operate at equal level when solving animal disease problems. More simplification is needed and target orientated legislation is a prerequisite for effective action.

4.3. PEST- analysis

The current situation in which a modern animal health framework has to perform is different from that in the past. Several trends can be observed that have contributed to these changes. These trends can be grouped into Political, Economic, Social/Cultural and Technological forces. With respect to the feasibility of the different policy options, the following trends are distinguished by experts (ISSG and policy makers of DG SANCO and DG AGRI):

Political forces:

- Increased EU attention to the principle of proportionality and subsidiarity.
- Increased EU attention to the polluter-pays-principle.

Economic forces:

- Increasing production costs for EU farmers and increasing competition from third countries.
- Increasing competitive pressure towards high-added value products.

Social/cultural forces:

- Increasing societal demands towards sustainability.
- Social/cultural differences between MS.

Technological forces:

- Risk of emerging diseases due to climate change.

Each trend might have an impact on the feasibility of the different identified policy options. It might enforce the feasibility of an option defined as an upward pressure; or it might reduce the feasibility of an option: a downward pressure; or the force might be neutral as it does not have an effect on the feasibility of the option.

The different policy options for a CRSS are evaluated in perspective of the defined trends and events that might affect the feasibility of these options. Input was provided by experts from various origins, i.e. MSs, ISSG and Copa-Cogeca. Their input was particularly focused on upward and downward pressures on the different choice options. In this chapter the highlights are discussed. In Annex 6 a detailed description of the identified forces and the effect on the different policy options is given. In the criteria for evaluating the different policy options, several trends were already included and discussed. In this chapter only those forces are discussed, that were not already included within the CVO criteria for CRSS in table 4.1. First the impact of political and economic forces for each separate policy option will be discussed, followed by a discussion of the impact of social/cultural and technological forces on the options in general.

4.3.1. Evaluating the different policy options in a changing external environment

For **Option 1,** with respect to **political** forces this **no-change scenario** is badly in line with the identified political trends.

The EU *principle of proportionality and subsidiarity* - which implies that the EU shall only act on matters of common interest if the objectives cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, and that the EU action shall not exceed what is necessary (no overregulation) – gets anno 2011 more emphasis than in the past. It puts a downward pressure on option 1, since this option is characterized by central regulation, accompanied by a heavy administrative burden and enforcement effort on EU level.

The increased emphasis in the EU on the *polluter-pays principle* forms a downward pressure for maintaining this policy option. MS's with frequent (large) outbreaks of contagious diseases put strong claims on the EU budget compared to MS's with low risk production structures.

Within the EU-27, more emphasis is given on ensuring that *individual interests* of MS are assured. This could form either a downward or an upward pressure for this option, dependent on the MS category (countries with expected high claims might have different interests than countries with smaller claims).

The increased attention to *sustainable agriculture* also expressed in the theme of the EU animal health policy –*prevention is better than cure*- forms a downward pressure for maintaining option 1. The current reimbursement system does not contain any incentives for a more preventive behaviour nor does it contribute to awareness of farmers of their own responsibilities regarding a more sustainable production (e.g. human health, animal health, animal welfare).

Economic forces that influence the feasibility of this option are the *increasing production costs* for EU farmers due to increased feed prices, societal demands as well as the decrease in direct payments (CAP) may form an upward pressure for maintaining option 1, as it does not require farmers' contribution to compensation of direct costs of disease outbreaks. The tendency towards market strategies aiming at more *high-added value products*, however, forms a downward pressure for this option.

For **Option 2 (EU co-financing with maximum and minimum farmers participation)**, partly the same upward and downward pressures related to external **political** forces apply as for option 1. In this option a MS with frequent outbreaks of notifiable diseases, put larger claims on the budget than a MS with low risk. At the EU level, the tendency towards increased importance of the *polluter-pays principle* also does not promote option 2.

At MS-farmer level, the situation is different though. Option 2 obliges farmers to bear a minimum percentage of the direct costs in case of outbreaks. This contains more incentives for preventive behaviour, private responsibility and cost sharing than the actual reimbursement system. This is at present already the case in MS's that implemented some form of private involvement in the contribution to costs of outbreaks. *Individual interests* of MS's with frequent outbreaks might provide in an upward pressure for option 2, since the risks to the MS budgets may be lower due to the private contribution to reimbursement of direct costs.

For the **economic** forces, the already increasing production costs for EU farmers and the increased competition from third country imports give a downward pressure for the feasibility of option 2, since this option includes a maximum for public reimbursement of disease outbreak costs. As a result, especially in high risk MS, production costs will further increase. However, the increased interest in high animal health and animal welfare as well as public health might be a legitimacy for direct payments in the revision of the CAP to support farmers in case of a disease outbreak.

Option 3A (a gradual introduction of a harmonised CRSS) is in line with the EU p*rinciple of proportionality and subsidiarity*, as it delegates more responsibility to the MS, provided that overregulation by the EU is avoided. A reduction of administrative burden in enforcement could be an important incentive for MS and livestock sector for realising a public-private CRSS. On the other hand, recent economic and financial crises have raised public questions on how private parties manage risks without appropriate controls from public authorities. Since not only costs but also responsibilities have to be shared in this option, this means that the sector will claim an important voice in policy development regarding outbreak prevention and control (e.g.

vaccination, culling). If the option is not properly implemented, the risk of poor implementation of CRSSs could lead to major animal disease outbreaks and high costs.

At the level of the relationship between EU - MS, compliance of option 3A with the *polluter-pays principle* depends on whether the EU reimbursement to the MS will be related to the risk profile of the MS.

On the level of the relationship between MS and farmers, option 3A is in line with the *polluter-pays principle*. A public-private partnership emphasizes the farmers' own responsibility with regard to prevention of transmission of pathogens, and creates necessary incentives for the different stakeholders to comply with preventive measures. It also emphasizes the allocation of responsibilities between individual farmers, the livestock sector and the government. For example: prevention strategies for vector borne diseases are not exclusively the responsibility of farmers. They need fine-tuning between national legislation and enforcement, transport, and veterinary services and preventive measures taken on farm level.

With respect to **economic** forces the already *increasing production costs* due to EU demands and policies form a downward pressure for implementation of a harmonised public-private costs and responsibility sharing scheme, as this option might cause further costs increase for farmers, and decrease of the competitiveness of agricultural business. Additional costs might increase the gap with third country producers. On the other hand, less distortion of production due to disease outbreaks, high food safety and animal-human health standards might be a competitive advantage on the market and increase profitability (*higher added value*). Implementation of a CRSS might also provide easier access to EU and MS funds for compensation of 'public goods' production. The tendency towards *large scale farming* also forms an upward pressure for implementation of option 3A, as large farms will have less difficulties with economic sustainability when costs of disease outbreaks will have to be internalized, and will have as well less difficulties with implementation of a CRSS. Unlike the increasing *costs*, increasing societal *demands* also can have an upwards pressure on this policy option which gives emphasis to corporate/livestock sector social responsibility.

Most current initiatives regarding public-private costs and responsibility sharing concerning disease outbreaks can be found in the densely populated livestock areas like Germany, Belgium and The Netherlands. In those countries that already implemented a PPP often a differentiation in premium paid by different livestock owners is made based on the livestock sector and farm type. This differentiation is based on risk profile and ability to bear costs.

The structure of animal husbandry in especially new MS is characterised by both large commercial animal production enterprises as well as large numbers of 'back yard' farming. In the case of implementing the CRSS in the MS in which there are large number of holdings with back yard farming or non-commercial holding the CRSS is faced with several challenges. The first challenge is registration of livestock owners, the second is to find incentives to motivate to comply with regulations and the third is to collect levies cost effectively.

These challenges might hamper the political willingness to strive for and the feasibility of a mandatory introduction of public-private partnerships in a CRSS.

The main reason for farmers to participate in a CRSS is the *responsibility sharing*. In many MS's, farmers have little say in the decision making process regarding prevention and management of outbreaks of contagious disease where they consider themselves most affected by the outbreak. Modulation of control strategies based on the different interests of livestock sectors and in consultation with the different livestock sectors might be a way to raise awareness and commitment of the stakeholders involved.

Option 3B offers MS the possibility to either implement a harmonised CRSS or maintain the current reimbursement system. MS with densely populated livestock areas and a well organised production chain could choose to implement a public-private CRSS, while new MS or MS with sparsely populated production areas could avoid the effort of CRSS development and implementation. This option offers some flexibility to MS with difficulties to implement a public-private CRSS. Both the opportunities and threats as mentioned for option 1 (no change) and option 3A (harmonised CRSS) apply for this option, depending on the chosen variant by the different MS. *Individual interests* of MS, especially of MS with sparsely populated livestock areas, might form a downward pressure for implementation of a CRSS, as MS with high risk profiles might also choose to maintain the existing system and keep on claiming a non-proportional part of the EU budget for reimbursement. Also the upward or downwards pressures on **economic** forces from the described economic forces depend on which scenario will be chosen by the MS: no change or implementation of a harmonised CRSS.

Option 4A limits EU intervention to cases of catastrophic events. This option is in line with the *principle of proportionality and subsidiarity*, as it complies with the EU policy towards more simplification and deregulation. The option leaves policy choices regarding public-private partnerships to the MS involved. It is not in line with the *polluter-pays principle*. Catastrophic events are more likely to happen in high risk areas, which means that the unbalance as occurring in the current compensation system is at least maintained, but probably even further supported. (Dis)advantages compared to the current system will depend on the definition of catastrophic events and the compensation rate that will be applied. The option does not provide in specific incentives for a more prevention-driven approach: in case of catastrophic events, the EU will compensate for direct costs, regardless of the efforts made to prevent the outbreak. However, as MS get less/not reimbursed in case of (small or medium) outbreaks and more own responsibilities in policy making and legislation regarding animal diseases, it might support a more prevention-driven approach by MS.

With respect to **economic** forces: The *increasing competition from third countries* as well as the already *increasing production costs for EU farmers* due to societal demands and fall in direct payments form a down-

ward pressure for deregulation of disease outbreak compensations to catastrophic events. It depends, of course, on the definition of 'catastrophic event', but will in any case lead to higher costs for farmers in high risk areas.

Option 4B grants lump sum payments to the MS instead of co-financing. This option is in line with the *principle of proportionality and subsidiarity,* as it meets tendencies towards decentralisation of responsibilities from EU to MS and simplification and deregulation. The *polluter-pays principle* could form an upward pressure for this option, at least on level of the relationship between EU – MS, provided that lump sum payments will be paid to all MS in dependence of herd sizes in the MS (flat rates of number of animals) and without taking into account the specific risk status of the MS. Introduction of policy option 4B is in that case not in the *individual interest* of category 1 MS with densely populated livestock production areas and high risks of disease outbreak. In contrast, new MS's with professional farmers as well as non-organised backyard farmers could be in favour of this option, as it does not oblige to realise public-private partnerships.

Increasing production costs and *increasing competitive pressure* are **economic** forces that might have, where it concerns MS with a low risk profile, an upward pressure on this option with lump sum payments for all MS's, provided that the lump sums will be established regardless of the risk profile in relation with animal health. For high risk MS, the opposite effect is at stake, as costs of large outbreaks will exceed the lump sum, which means that a larger part of the reimbursement will become the responsibility of MS and/or its farmers.

Option 5 is the *establishment of a fully harmonised EU CRSS system managed by the Commission.* In this option the same upward and downward pressures are identified as with option 3A. However, there are important differences. A fully harmonised EU CRSS, managed by the Commission, is not in line with the *principle of proportionality and subsidiarity*, which strives for decentralisation of responsibilities from EU to individual MS's where possible. The tendency towards simplification and deregulation also forms a threat for implementation of option 5: a CRSS managed by the Commission will put a heavy burden on regulative administration and enforcement. It might also create a conflict with *individual interests* of MS's, as a EU wide harmonised CRSS cannot take into account differences in cultural characteristics of relevant stakeholders within the MS, with whom the public-private partnership must be realised, and with the risk characteristics and production structure of the MS at stake. The EU policy towards sustainable agriculture forms an upwards pressure for implementation of this option, as it puts emphasis, as option 3A does, on corporate social responsibility (CSR) of entrepreneurs. For a fully harmonised CRSS managed by the EC, the same upward and downward pressures of **economic forces** are at stake as with option 3A.

Besides political and economic forces several **social/cultural** and **technical forces** affect also the feasibility of the different options. The most important ones are briefly discussed.

- Differences in production practices in MS, e.g. the occurrence of *backyard farming* in especially new MS, will have a downward pressure on implementation of a public-private CRSS for reasons already mentioned **(option 2, 3A, 3B, 5)**.
- Increasing social unrest by *large scale killing* in cases of notifiable animal diseases is a social/cultural force that has an upward pressure on the policy options with public-private costs and responsibility sharing (**options 3A, 5, 2 and partially 3B)**, as these options are more prevention-driven and therefore supposed to lead to lesser disease outbreaks and/or smaller outbreaks. The necessity of large scale killing consequently decreases.
- Climate change with the risk of introduction of new livestock epidemics puts a downward pressure on compensation schemes that lack incentives for a more prevention-driven approach of farmers and for this reason forms an upward pressure for policy options with public-private sharing of costs and responsibilities **(option 3A and 5)**, or at least private contribution to compensation systems **(option 2)**.
- The increasing availability of diagnostic and monitoring tools forms an upward pressure for the efficiency and efficacy of **all policy options**, as it supports a rapid detection of outbreaks and efficient monitoring of the effectiveness of control measures.
- The increasing development of quality insurance schemes forms an upward pressure for policy options with an increased private responsibility (**options 2, 3A, 5)**, as quality insurance schemes might enhance the possibilities of getting premium market prices for 'healthier' animal products.

4.3.2. Conclusions of the PEST analysis

The PEST-analysis presented above aimed to support the evaluation of the feasibility of the different policy options at present times by evaluating the impact of present major trends that are related to political, economic, social and technological forces.

From the PEST analysis, we draw the following conclusions:

- Most of the above mentioned major trends emphasize the development and implementation of compensation systems with public-private costs and responsibility sharing (CRSSs), especially **option 3A, option 5** and to a lesser extent **option 2**.

- The already increasing production costs and competitive pressure from third countries as well as social/cultural differences between MS can reduce the feasibility of an introduction of compensation systems with public-private costs and responsibility sharing. The social structure of, in particularly, new MS

with a large number of 'backyard' farmers might hamper the realisation of public-private cooperation in disease compensation and control. Whether it is worth the effort to include backyard and non-commercial holdings in the CRSS has to be based on epidemiological, economic as well as political arguments.

5. Proposal for a EU harmonized framework for a Cost and Responsibility Sharing Scheme

The current system for reimbursement by the Veterinary Fund in case of an outbreak of major livestock diseases is perceived as having no specific incentives for prevention, has distortions in favour of high risk areas, partial compensation in case of an outbreak, complex community co-financing rules and a risk for the community budget. At present the EU reimburses up to 50% (60% in case of FMD) of the direct cost of an outbreak of the former known list-A epidemic livestock diseases, irrespectively of prevention measures taken and the claim history by a Member State. The remaining part of the direct cost has to be covered by the MS. Whether that is fully paid from the government's budget or is (partly) covered by farmers' contribution at present differs between MS's (chapter 3.1 and 3.2 describe the present situation in detail).

Based on the information presented in the previous chapters and expert consultation, in this chapter a first outline of **option 3A-** *an EU harmonised framework for Cost and Responsibility Sharing* - is presented. The presented outline of a new CRSS tries to include components that avoid the drawbacks of the present system. The objectives presented by the Working party of CVO's as described in paragraph 1.1 are used for this evaluation. Besides these criteria the following additional criteria for a CRSS will be taken into account. A CRSS should:

- Be simple and easy to implement.
- Contain incentives for preventive measures.
- Take into account the differences between Member States in occurrence and impact of outbreaks of contagious diseases.
- Consider different types of public-private partnership and not only private insurances. With regard to consequential/indirect losses, it is assessed whether it will be convenient or not to include consequential losses in the CRSS and whether this will be better covered through private or public parties (easier to manage in private or public schemes).
- Include which animal health risks might be insurable by the private insurance sector and in which cases EU or MS governmental contribution might help insurers providing insurance cover at a price that livestock owners can pay (allocation of responsibilities is also a key issue to be addressed).
- Ex ante financing and the development of ex ante schemes should also be considered. Taking into account the different situation in the individual Member States, depending on the risk exposure and insurance market's features, it is assessed whether an EU harmonised scheme would be feasible when it comes to private insurance. Trade aspects and distortion of competition are a key aspect to be considered as well.

- Be limited to the major livestock diseases FMD, CSF and AI.

The components of the *CRSS* are described in paragraph 5.1.1 and 5.1.2. In paragraph 5.1.3 the proposed CRSS will be evaluated with the present system as reference. Besides evaluation on the above mentioned criteria the final EU expenditure that would be needed in a large-scale epidemic, if the proposed CRSS is in place, is compared with the current situation.

In the presented CRSS to cover the *direct costs* of an outbreak, two levels of relations can be distinguished:

1) Risk sharing between the MS and the EU – for this we propose a Bonus Malus system-, and
2) Risk sharing between farmer and MS – for this we propose a Public Private Partnership (PPP).

A system that could be implemented to cover consequential/indirect cost is only briefly discussed since it is not a component of the proposed CRSS. However, a system to cover consequential losses could facilitate the implementation of a CRSS.

5.1. Risk sharing MS – EU: introduction of a Bonus Malus (BM) system for the coverage of direct losses

Baseline description of the BM system

Parts of the drawbacks of the present system can be overcome or improved by implementing a Bonus Malus arrangement (BM) which alternately rewards (bonus) or penalizes (malus) claiming behaviour. A BM usually has an effect on claim statistics, as it stimulates to be more careful in preventing outbreaks that would lead to the loss of bonus.

The fundamental principle of BM for the CRSS is that claim history (frequency and claim amounts) of a Member State has an impact on the entitled reimbursement percentage in case a claim has to be made due to an outbreak of an epidemic livestock disease (in this report we will limit ourselves to FMD, CSF an AI).

- The Bonus is an increase in reimbursement percentage which is given if no claim is made in the previous year.
- Malus is a discount in the reimbursement percentage if there was a claim in the previous year.

In Table 5.1, a *hypothetical* BM system for CRSS is presented. Here is described what will happen in case of an outbreak of an epidemic livestock disease with respect to the reimbursement percentage a MS can claim from the Veterinary fund. This *hypothetical* BM system divides Member States by classes, where each class has its own reimbursement percentage. The starting class for a MS when the system is implemented is set at the current reimbursement level (50%), and over years can increase up to for example 60%, or drop to 40% depending on claim history[3]. The claim history comprises all main epidemic livestock diseases jointly (in contrary to a BM system per livestock sector and disease).

In case of no outbreak

In case a MS did not have an outbreak of either FMD, CSF or AI in the previous year the reimbursement class increases by 1% up to a maximum level of 60%. This is the maximum reimbursement level a MS can achieve.

In case of an outbreak

In case of an outbreak the proportion of reimbursement is equal to the reimbursement class of the year of the outbreak. However, if there is a large outbreak and the costs *exceed* a predefined amount, there will be a reduction (-5%) in reimbursement of the exceeding costs. (The definition of large outbreaks has to be defined by MS's and EU. The absolute costs of the outbreak or the percentage of livestock involved and duration of the outbreak can be used to classify the size of an outbreak.) Sometimes an outbreak covers more than one calendar year, in this case it is assumed to be one outbreak and not two successive outbreaks.

[3] The percentages given are hypothetical and are used to illustrate the approach.

Table 5.1: A *hypothetical* Bonus-Malus (BM) system for a Cost and Responsibility Sharing System (CRSS).

	Reimbursement in case of an outbreak		**Class after claim in next year**			
Class in initial year	Initial Reimbursement	Large outbreak	No claim	Small outbreak (-1)	Medium outbreak (-5)	**Large outbreak (-10)**
60	60%	50	60	59	55	**50**
59	59%	49	60	58	54	**49**
…..	…..		…..	…..	…..	**…..**
51	51%	41	52	50	46	**41**
50	50%	40	51	49	45	**40**
49	49%	39	50	48	44	**40**
…..	…..		…..	…….	…..	**…..**
40	**40%**	**30**	**41**	**40**	**40**	**40**

The year after an outbreak

In case a MS has suffered an outbreak the reimbursement class will be lower in the succeeding year. This class reduction depends on the size of the outbreak.

- In case of a small outbreak there is only a very small (or no) reduction in entitled reimbursement. The rational is that there should be no moral hazard for a MS to postpone the disclosure of outbreaks. The cost that should be covered, in our opinion, is the initial cost for taking all the compulsory preventive measures around the index case of an outbreak (cost for implementations of EU measures e.g. culling of the first farms, tracking and tracing and implementation of movement restrictions). We expect that these initial costs do not vary much between MS, so a fixed lump sum is suggested.
- However, if the cost exceeds these initial costs the reimbursement rate for the next year reduces with 5% in case of a Medium outbreak.

- In case of a Large outbreak a reduction of 10% is foreseen.
- There is a minimum reimbursement class that a MS will receive (here approximately 30% in case of large outbreaks). This minimum –but still substantial- reimbursement rate ensures that a MS will be motivated to adequately eradicate the outbreak in line with the regulations as formulated in the Veterinary Fund.

Once again the values in this example are hypothetical, while also the definition of medium and large outbreaks has to be defined by MS's and EU.

Please note that the present EU system for management evaluation during an outbreak remains in place. This system includes incentives for a quick and adequate response of the MS to control and eradicate the disease.

Example

Suppose a MS suffers an outbreak of FMD and that will cost 10 million €. This outbreak occurs in year 6 after introducing the schema (reimbursement class 56%)

Assume that:

- The amount that is agreed upon as being a large outbreak is 9 million €.
- Reduction in case of medium outbreak exceeds 1million € and large outbreak 9 million €.

The contribution by the EU in this case will be 5.5 million € (56% of 9 million €) and 46% of 1 (10-9) million €). In the next year the reimbursement class will be 41% (51-10).

The BM system is a robust and a simple compensating system, which is moreover easy to control and to be implemented. The simplicity is that BM system does not require information on risk prevention strategies implemented in each member state since it rewards or penalizes the outcome of measures taken.

Additional remarks and comments

- The used percentages and steps presented in the proposed BM system are hypothetical and typically can be adjusted based on consultation and negotiations between EU, MS and stakeholders.
- A cost neutral implementation implies that some MS's benefit from the system while it is disadvantage for other MS's. However, if the merit of the BM system is that it facilitates risk prevention on the long run, it might be beneficial for all.
- Outbreaks in neighbouring MS's that spill over will impact the reimbursement for other affected MS's. However, if the response of a MS is adequate and the outbreak can be contained quickly, there will only be a very small reduction in reimbursement class.
- The proposed blueprint in relation to reduced reimbursement of direct costs also provides an incentive for an adequate response of the Member State. The potential moral hazard that could occur when a MS is tempted to "wait and see" to avoid a reduction in future reimbursement is reduced by the fact that small outbreaks do only result in a reduction in future reimbursement of only 1%.
- *Ex post and not ex ante*. The presented system does not evaluate the risk prevention of the MS but only evaluates the outcome. This overcomes difficulties in evaluating the effects of preventive measures ex ante.
- *Additional bonus for implementing additional measures.* To create incentives for a MS to implement preventive measures or financing mechanisms that involve stakeholders' participation an additional bonus could be considered.

Reduction in reimbursement in case of large claim during an outbreak

The bonus malus system is affecting the reimbursement of future outbreaks. To stimulate an effective and adequate response of the responsible authorities during an outbreak in the proposed CRSS a reduction in reimbursement for exceptionally high claims to the Veterinary fund is proposed. In this hypothetical example when the total direct costs of an outbreak exceed 9 million€ a reduction of 10% in reimbursement of the cost above this amount is proposed.

5.2. Risk sharing between farmer and Member State; a Public Private Partnership (PPP).

The second part of the CRSS focuses on the relation within a MS between government and farmers and other stakeholders to cover the *direct costs* by means of a *compulsory public statutory compensation scheme*.

To cover the national part of the direct costs, we propose a public–private partnership (PPP) which is funded and operated through a partnership of the *national* government and the primary livestock sectors. This PPP shares responsibilities and funds the remaining direct losses to complement the EU reimbursement. Under the assumption that the contribution by the national budget of the Member States is a fraction of the remaining direct losses, the costs that have to be funded by the private party depends on the outbreak size and BM class.

In case a MS in the recent past was confronted with disease outbreaks and therefore a new outbreak would result in a lower reimbursement percentage, in order to avoid next costly outbreak this MS has additional incentives to implement more stringent preventive measures. These measures can be both directed towards introduction prevention as well as transmission prevention between farms.

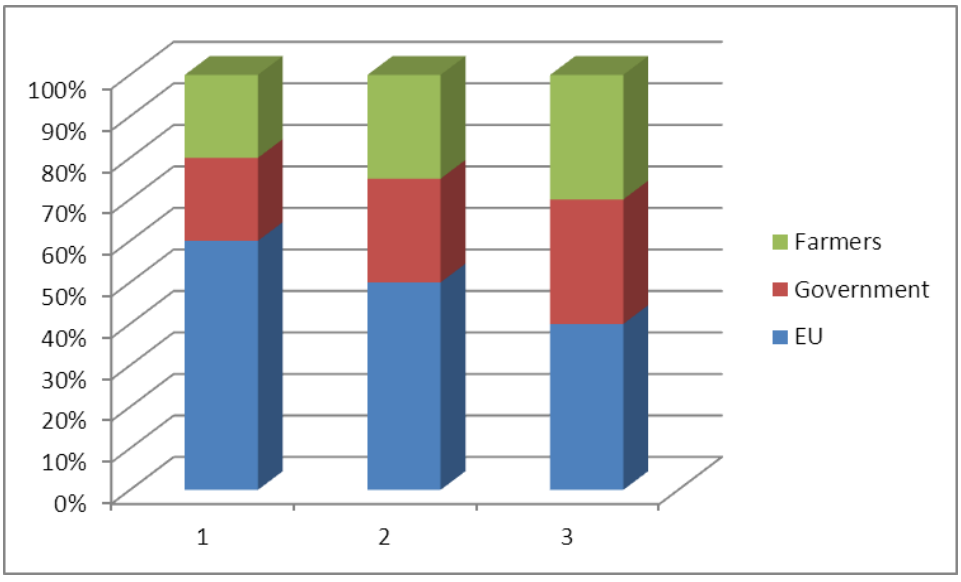


Figure 5.1 **Coverage of the direct costs of an outbreak of a contagious disease.**

To illustrate the inter-linkage of the BM with the PPP, in Figure 5.1 three possible situations of EU contribution in the direct costs of an outbreak in a MS are shown, assuming a statutory compensation system. The differences are due to the fact of different disease history and thus different reimbursement classes.

- In situation 1 the EU covers 60% of the direct costs,
- In situation 2 this is 50%, and
- In situation 3 this is 40%.

Given that the direct costs of an outbreak will be 10 million € in situation 1 the EU covers 6 million €, in situation 2 this will be 5 million € and in situation 3 this will be 4 million €. The remaining part of these direct costs has to be covered by the MS. In case of a proportional cost sharing between government and farmers each have to contribute respectively 3, 2.5, or 2 million €.

Responsibility sharing and Cost sharing

A vital part of the PPP is that farmers, livestock sectors and national governments decide how *responsibilities* and *cost* are shared. Given the specific situations in each MS the funding of the PPP might differ between different MS's. In some of the MS's a PPP already exist (e.g. Germany, Belgium, The Netherlands) or are under research (such as in the UK). Each of these MS has organized their PPP in a different way. Differences between the existing systems exist for example in the risk sharing strategy between farmers and government of the MS. In case of co-financing to complement the public part, the amount that is financed by the sector can be proportional or non-proportional, or both. If risks are shared between the sector and the national government by means of a proportional contract (i.e., pro-rata contract), the levy is specified as a fraction of the coverage. With non-proportional contracts, the national government indemnifies only claims in excess of a particular threshold. Essential parts in our view of a PPP should be:

- Not only costs but also *responsibilities* are shared. For example this can result in involvement of farmers and government in the design of contingency plans and eradication strategies in case of an outbreak of an epidemic livestock disease.
- Incentives for preventive measures should be addressed. Since the effect of preventive measures on the probability of introduction and spread of epidemic diseases might vary between different MS's and even regions within a MS, it is up to the MS to decide how much emphasis will be placed on the implementation of these preventive measures. The effect of measures taken will affect the frequency and impact of outbreaks, and thus costs and EU reimbursement percentage.
- Participation is compulsory and farmers financially participate by paying a levy.
- The system should include risk differentiation in levies. Differentiation of levies should be based on those factors affecting the probability of introduction of an epidemic livestock disease. For

example levies can depend on the participation in a (subsidized) sanitary quality scheme. Community guidelines for state aid in the agriculture and forestry sector 2007-2013 (2006/C 319/01) allow subsidising these schemes. Moreover, levies might depend on region, animal species present at the farm and/or contact structure.

EU involvement in these MS's PPP can be limited since it is an arrangement made between farmers and government within a MS. However, the implementation of such scheme can be stimulated by the EU. In case additional support is given to a MS to facilitate implementing such a PPP programs by the EU, this implementation can be based on EU guidelines (that in that case have to be developed).

Preventive measures

There are a number of reasons that favours the PPP approach to finance epidemic livestock disease risks rather than a public compensation scheme, which are related to manage the problem of asymmetric information. Since a PPP is an arrangement made between farmers and government it will emphasize and facilitate proper incentives of risk prevention to farmers, better than public compensation schemes organized otherwise. The following incentives are to be discussed:

- levy differentiation;
- contract specification;
- social control.

Since farmers are an essential element in a PPP, there is likely to be broader support for differentiation of levies since colleague farmers instead of an anonymous government impose these measures. Moreover, because of familiarity of colleague farmers with certain production circumstances, support for differentiation will be more likely. Colleague farmers can also easier define and impose more stringent contract specifications on 'due diligence' to minimize moral hazard. A PPP is likely to have an increased attention to the required minimum standards for 'good farming practices'. Moreover, problems of moral hazard and fraud will be reduced because of increased social control since farmers collectively finance part of the losses.

The required minimum standards and a proper differentiating of levies should be according to measurable risk factors. What is however typical is the relatively limited amount of data about livestock epidemics as these are generally rare events. Even more, due to the dynamic risk environment historic data are often of relatively little value. These issues hamper the establishment of statistically founded risk classification methods and therefore the design of actuarially sound and a fair differentiation of levies. Classification criteria can include for example farming sector involved, farm location, and number of animal contacts with other farms, farm hygiene practices, hygiene barriers in place and quality assurance schemes.

A proper risk classification and differentiated levy scheme accordingly can induce the livestock sector towards more risk prevention. Structural business changes would be required if for example region of location

and farm size are important risk factors. On the contrary, behavioural changes for risk factors such as proper usage of hygiene barriers and number of quality assurance schemes seem to be more straightforward to be implemented.

Implementing structural and behavioural changes to prevent epidemics will require additional financial resources. Decreased levies should off-set these additional expenditures at farm level. Adoption of these enhanced practices could furthermore be promoted by subsidising the initial costs.

5.3. Coverage of consequential losses

During an outbreak of contagious disease like FMD, CSF or AI farmers are confronted with substantial direct and consequential/indirect losses. Different types of consequential/indirect losses occur at different farms:

1. *Farms culled* are confronted with direct losses that occur on infected or preventively culled farms. These losses are mostly covered by the MS (and co-financed by the Veterinary Fund). Costs compensated include the value of animals and feed present at the moment of culling animals on the farm. However those culled farms are also confronted with non-compensated losses because of loss of income during the time the farm is not fully repopulated and in production. Also they are confronted with additional start-up costs.
2. *Farms in a Surveillance or Movement restriction* zone during the stand still period are also confronted with (non-compensated) consequential losses, mainly due to the fact that they are not able to freely move animals or livestock products.
3. *The livestock sector* in a MS as a whole also is confronted with consequential losses due to trade restrictions.

Coverage of the consequential/indirect cost is outside the review of Decision 2009/470/EC for the CRSS and typically should be voluntary and could be a mutual or a commercial insurance, possibilities to cover (part of) these costs however can substantially facilitate the introduction of such a CRSS. Possibilities to cover those losses that are not targeted via the national veterinary fund or the review of Decision 2009/470/EC could be voluntary mutual insurance schemes.

In such schemes it seems appropriate to include compensation for the consequential/indirect losses of those farms where all animals were culled as well as farms within surveillance and movement restriction zones.

A major drawback for compensating consequential losses is the fact that they are difficult to determine. Most of the time they only can be estimated after the outbreak ended and the situation is back to business

as usual. Therefore, in case part of these consequential losses will be compensated beforehand, a fixed sum per production unit is set by farmer and mutual or commercial insurance company can be agreed upon.

It seems neither favourable nor feasible to compensate for losses due trade restrictions. The reasons for this are that:

- these costs cannot be determined explicitly;
- and the whole sector in a MS is confronted with these losses at the same time. Insurance would mean that farmers would pay for their own losses.

There is some substantial benefit of introducing coverage of consequential/indirect losses adjacent to the CRSS targeted via the national veterinarian fund or the review of Decision 2009/470/EC. These are:

- Improvement of the acceptability of the CRSS by the private sector. As seen from the response of Copa-Cogeca possibilities for coverage of consequential/indirect losses are important for the private sector.
- Implementation of a voluntary scheme to cover consequential/indirect losses would facilitate the implementation of preventive measures since premium differentiation could be based on this implementation.

Voluntary mutual insurance schemes can cover those losses that are not targeted via the national veterinarian fund. Premiums in such schemes paid by farmers should be risk dependent. A MS can for example support the participation of farmers to this fund by subsidizing the premiums paid to this mutual.

The uptake of a PPP by farmers could be improved by connecting the PPP with coverage of the consequential/indirect losses. Especially coverage of those costs that are due to business interruption of farms in which animals are culled or farms in a surveillance or movement restriction zone could facilitate this uptake.

It is at the moment under investigation whether art. 68, 69, 70 and 71 of Council Regulation (EC) No 73/2009 of 19 January 2009 (establishing common rules for direct support schemes for farmers under the Common Agricultural Policy and establishing certain support schemes for farmers, amending Regulations (EC) No 1290/2005, (EC) No 247/2006, (EC) No 378/2007 and repealing Regulation (EC) No 1782/2003) can be used to allow premium subsidy of farmers by MS. Note that Member States at the moment may provide for financial compensation to be paid to farmers for economic losses caused by the outbreak of animal disease by way of financial contributions to mutual funds (Article 70, EU, COM(2008) 306).

6. Impact assessment of the proposed EU harmonized framework for a CRSS

The impact of the proposed EU harmonised framework for a CRSS (policy option 3A described in detail in paragraphs 5.1 and 5.2) is assessed. This will be done in two complementary steps. The characteristics of this policy option are displayed in table 6.1. First, based on historical data, the impact on reimbursement percentages of the proposed CRSS is analysed (*past*). Second a modelling approach is used to study the behaviour of the framework for a period of the next 10 years (*future*).

Table 6.1.: Summary of the characteristics of the CRSS.

Bonus Malus system			
Bonus per year with no outbreak	1%		
	Total direct cost of an outbreak		
	Smaller than 1 million €	Between 1 and 9 million €	Higher than 9 million €
Malus	1%	5%	10%
Upper reimbursement level	60%	Lower reimbursement level	40%
Reimbursement reduction current outbreak			
Reduction in current reimbursement	10%	If direct costs of current outbreak exceed 9 million € all costs above this level have this reduction	
PPP	compulsory		

6.1. Impact assessment of CRSS based on historical analysis

The objective of this historical analysis is to determine what would have been the budgetary consequences for the EU up to 2010 if the proposed CRSS would have been implemented in 1997. The proposed CRSS for each MS is analysed given their historical outbreak data and claims due to infections with CSF, FMD and HPAI. For this the total direct cost of outbreaks were analysed based on the payments done by the EU vet-

erinary fund. Although the actual payments of outbreaks were sometimes done in a time span of several years, in our calculations they were treated as having occurred in the first year the outbreak was reported.

Table 6.2: Analysis of total direct costs of outbreaks of CSF, FMD and AI in MS in period 1997-2010

	costs (€)
Total direct costs of all outbreaks	1,722,884,488
EU contribution from the Emergency Fund	971,244,107
Average total direct costs per outbreak	36,242,563
25 percentile	742,977
50 percentile	3,589,734
75 percentile	9,047,565

As can be seen from table 6.2 the distribution of costs per outbreaks of CSF, FMD and AI is highly skewed. A large number of outbreaks have relatively low costs: 50 % of the outbreaks have total direct cost of less than 3.5 Million €, whereas several outbreaks are extremely costly. This is illustrated by the fact that 25% of the outbreaks have cost of more than 9 Million €.

The comparison between the current system and the BM system is shown in table 6.3.

As can be observed from the historical analysis the total costs for the veterinary fund of the EU would be substantially lower (365 Million €) in the new situation compared to the present situation.

Please note that this will be an overestimation of the costs for the veterinary fund of the EU in the new situation since the effect of potential additional preventive measures due to the CRSS are difficult to include in this analysis.

Reasons for observed differences are:

- MS's with large outbreaks of CSF, FMD or AI would receive a smaller reimbursement compared to the current situation;
- In the new situation FMD is indemnified at the same level as AI and CSF. In the present situation MS receive a 60% reimbursement in case of a FMD outbreak;

- MS's with occasional and small outbreaks receive a higher reimbursement from the Veterinary Fund in the new situation compared to the present situation.

The impact on the annual budget for the Veterinary Fund is presented in figure 6.2.

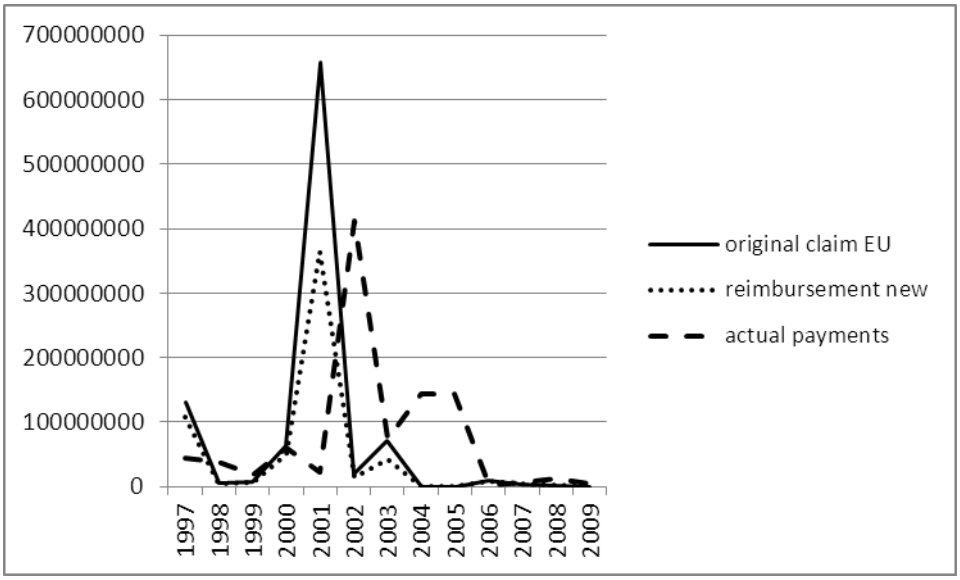


Figure 6.2 reimbursements by EU to MS's per year [1]

[1]The calculated *original claim* assumes that all cost of an outbreak is allocated to the year the outbreak was first reported. The *reimbursement new* comprises costs for the EU budget in case the BM was adopted in 1997. The *actual payment by the Veterinary Fund to the MS takes* into account outbreaks with a multi-year duration and thus a delay in claims.

The calculated original claim is associated with an extreme peakedness in budgetary needs. Analysis of the actual payment data shows that that there is a time lag between the moment of the outbreak and the actual payments to a MS. Because of his the spike is less extreme than the spike of the calculated original claim. This spike in monetary needs from the fund is reduced in the new reimbursement scheme. However the spike is still substantial. This lower spike has two reasons: (1) the 10 % reduction due to large outbreak and (2) the MS with large claims in the past downgraded in a lower class on the BM scale.

Table 6.3: Total expenditure for EU for reimbursement of outbreaks of CSF, FMD and AI in the period 1997 to 2010 compared to reimbursement in case the proposed BM system was adopted

Country	Total direct cost	Reimbursement new	Original claim EU	BM in 2010 [1]
Germany	62,279,642	22,741,585	31,253,466	42%
Belgium	24,667,625	8,644,600	12,480,208	47%
Cyprus	308,333	185,000	185,000	60%
Czech Republic	1,021,294	562,739	510,647	58%
Denmark	1,099,065	644,889	549,533	59%
Spain	72,092,367	24,877,710	36,046,183	48%
France	8,875,232	4,881,377	5,325,139	57%
Greece	7,400,517	3,565,743	4,440,310	51%
Hungary	2,000,000	1,180,000	1,000,000	57%
Ireland	9,027,135	4,874,653	5,416,281	57%
Italy	90,354,276	38,852,339	45,177,138	52%
Luxembourg	3,179,468	1,748,707	1,589,734	57%
The Netherlands	475,146,124	171,681,033	249,343,408	42%
Poland	1,690,000	1,014,000	845,000	57%
Portugal	100,170	60,102	50,085	60%
Slovakia	968,356	550,091	484,178	55%
United Kingdom	962,674,884	319,595,854	576,547,767	43%
MS's without outbreak				60%
Total	1,722,884,488	605,660,421	971,244,107	

1 Reimbursement percentage in BM system.

As already stated, in our approach all costs of an outbreak were allocated to the year of the start of the outbreak. If a similar delay is also accounted for the BM in accordance to the actual payments the annual budgetary needs are expected to be less volatile.

6.2. Modelling approach to analyse the impact of CRSS

The future impact of the implementation of a CRSS is expected to vary for different MS's within the EU. Three groups of MS's can be identified:

1. MS's with densely populated livestock areas (e.g. Germany, The Netherlands, Belgium, Denmark, France, Spain);
2. Old member states with mainly medium or sparsely populated livestock areas (e.g. Finland, Sweden, Austria);
3. New member states with mainly medium or sparsely populated livestock areas (e.g. Slovenia, Lithuania, Romania).

To assess the future impact of the presented policy options, from each category one MS is selected for an in-depth analysis. The selected MS's are for category 1: *The Netherlands, f*or category 2: *Finland,* and *for* category 3: *Romania.*

6.2.1. Epidemiological risk analysis

To evaluate the future impact, an epidemiological risk assessment of outbreaks or epidemics for the selected diseases CSF, FMD and HPAI is conducted. The consequences of new outbreaks of these notifiable diseases are described. Historical data is used to estimate the frequency and size of future outbreaks. Here we use the term "outbreak" for an animal infection spreading on one particular farm, and use the term "epidemic" for an infection spreading across farms.

For each particular disease, the assessment falls apart into two parts, namely:

- Part 1: estimation of the probability of occurrence of an outbreak or an epidemic;
- Part 2: estimation of the size of epidemic.

Despite their irregular occurrence, the patterns of spread (both between animals and between farms) of contagious diseases seen in the past as well as the observed effect of eradication strategies both provide a useful basis for estimation of the risk of spread once an introduction of the infectious agent has occurred. For example, past patterns of between-farm spread of former OIE List-A diseases such as CSF, FMD and HPAI have shown that the risk of spread is very much dependent on the characteristics of the sector in the area or region where the disease is introduced. Also, the risk of introduction itself will generally be subject to regional variation. Therefore, usually the risk related to livestock epidemics has to be calculated with reference to a particular region. The important epidemic diseases, such as FMD, CSF and HPAI produce low-probability-high-consequence risks in specific regions of interest.

Part 1: Risk of Introduction of notifiable diseases

Because of the lessons learned in MS's that have actually experienced outbreaks in the past, it is fair to say that these experiences have resulted in a higher awareness and motivation to put in place preventive measures in those MS's. This also means that it is reasonable to analyse the data for 3 different periods in order to come to a final (subjective) estimate of the risk of introduction of a notifiable disease for a specific MS: a) period of the last 20 years; b) period of the last 15 years; c) period of the last 10 years.

Foot and Mouth Disease (FMD)

The Netherlands

In the last 20 years, the Netherlands experienced once a FMD introduction (in 2001). This results in a probability of introduction of FMD of once per twenty years. In the last ten years, there was one FMD introduction into the Netherlands. In the last 2-3 years, the number of ruminants imported (in particular veal calves) from Bulgaria, Romania, Ukraine and the Baltic states (close to Turkey and Russia, where FMD outbreaks are still occurring) has increased with 50%. Taking this into account, it is assumed that the present risk of introduction of FMD into the Netherlands is once per 10 years.

Finland

The last outbreak of FMD in Finland was in 1959, meaning that Finland has been free of this particular disease in the last 51 years. Information on import of live bovines, sheep and goats from the areas where FMD is still circulating close to the borders of the EU (Turkey, Russian Federation) were checked via Eurostat statistics (http://epp.eurostat.ec.europa.eu/newxtweb/). It appears that Finland has not imported any animal from these species from those areas in the last 10 years. Based on this information, it is assumed that the present risk of introduction of FMD into Finland is roughly once per 50 years.

Romania

The last outbreak of FMD reported in Romania was in 1973, meaning that Romania has been free of this particular disease in the last 37 years. However, Romania is close to Turkey and Russia, where FMD outbreaks are still occurring. Information on import of live bovines, sheep and goats to Romania from the areas where FMD is still circulating close to the borders of the EU (Turkey, Russian Federation) reveals that Romania has not imported any animal from these species from those areas in the last 10 years. Based on this information, it is assumed that the present risk of introduction of FMD into Romania is once per 35 years.

Classical Swine Fever (CSF).

The Netherlands

The Netherlands had outbreaks of CSF in 1990, 1992 and 1997. This results in a probability of introduction of CSF of three per twenty years, or approximately once per seven years. Overall, it is assumed that the present risk of introduction of CSF into the Netherlands is once per 15 years since hygienic measures have improved substantially since the last CSF outbreak.

Finland

The last outbreak of CSF in Finland was in 1917, meaning that Finland has been free of this particular disease in the last 93 years. Based on this information, it is assumed that the present risk of introduction of CSF into Finland is once per 100 years.

Romania

Before the year 2000, the last outbreak of CSF in Romania was reported in 1974. In Romania, CSF outbreaks were reported in 2001, 2002, 2003, 2004, 2006, and 2007. This results in a risk of introduction of CSF of six per twenty years, or once per three-and-a-half years. If you take a period of the last fifteen years, the risk of introduction of CSF was six per 15 years, or once per two-and-a-half years. Overall, it is assumed that the present risk of introduction of CSF into Romania is once per three years.

Notifiable Avian Influenza (NAI)

The risk of introduction of NAI consists of the risk of introduction of LPNAI and the subsequent probability of mutation of LPAI towards HPAI, and the probability of direct introduction of HPAI.

Only a certain (unknown) proportion of notifiable LPAI introductions will mutate to HPAI. In an earlier study in the Netherlands this probability is guessed to be approximately 0.15 (or once in 7 years).

Since 2004, a serological monitoring system has been put in operation in Member States of the EU to detect introductions of notifiable LPAI in commercial poultry.

In Table 6.4, the results of the EU serological monitoring system for detection of notifiable LPAI introductions are shown for Finland, Romania and the Netherlands.

Table 6.4.: Years in which one or more notifiable LPAI introductions were detected via the EU serological monitoring system (available for 2004-2008).

	Detected introductions of LPAI (H5 or H7 subtype) via the serological monitoring system		
Year	Finland	Romania	Netherlands
2004	no	-	yes
2005	no	-	no
2006	yes	-	yes
2007	yes	yes	no
2008	yes	no	no

Source: (http://ec.europa.eu/food/animal/diseases/controlmeasures/avian/eu_resp_surveillance)

Netherlands

The last HPAI epidemic in commercial poultry in The Netherlands was reported in 2003. It is assumed that an introduction of LPAI of H7N7 subtype in one poultry barn mutated to a HPAI subtype in another poultry barn on the same poultry farm. Seventy-five years before, the first HPAI outbreak was reported in the Netherlands (in the same area as the epidemic in 2003). In 2004 and 2006, LPAI introductions (in layers and swans) detected via the EU serological monitoring system were reported from the Netherlands. Based on this information, it is assumed that the present risk of introduction of NAI in commercial poultry into the Netherlands is once per 5 years.

Finland

There has not been any HPAI outbreak reported – not in commercial poultry or in wild birds - in Finland in the last 100 years. In 2006, 2007 and 2008 LPAI introductions (in ducks and geese, not in poultry) detected via the EU serological monitoring system were reported from Finland. Based on this information, it is assumed that the present risk of introduction of NAI in commercial poultry into Finland is once per 50 years.

Romania

Before 2000, the last HPAI epidemic in commercial poultry in Romania was in 1942. Since 2000, HPAI outbreaks in commercial poultry in Romania were reported in 2005, 2006, 2007, and 2010. So, in the last ten years there have been 4 years with HPAI outbreaks, or once per two and a half years. On top of that, from 2007 and 2008 statistics, LPAI introductions were reported in 2007 for Romania (see Table 1). Based on this information, it is assumed that the present risk of introduction of NAI in commercial poultry into Romania is once per two years.

Table 6.5.: Summary table with probabilities of outbreaks of FMD, CSF, and AI

	Chance outbreak 1/xx years		
	Netherlands	Finland	Romania
FMD, 1 outbreak per .. years	15	50	35
CSF, 1 outbreak per .. years	20	100	3
AI, 1 outbreak per .. years	10	50	2

Part 2 Estimation of the size and duration of future epidemics

The extent at which FMD, CSF and HPAI occur depends firstly on the risk of introduction as discussed in the previous part and is furthermore influenced by the local epidemiological situation. This is characterised by the following aspects:

- Farm density and animal density (of the susceptible species);
- Contact structure between these farms;
- Preventive measures (at farm level and at national level);
- Surveillance systems and early warning systems;
- Speed of implementation and efficacy of control measures.

We will give an overview of the epidemiological situation in the three MS's that are used as an example in this study.

The Netherlands is used as a basic information source, because recent studies have been performed on Dutch data, analysing these questions regarding HPAI (Backer et al., 2011) FMD (Backer et al., 2009) and CSF (Backer et al., 2007)]. Thus, these studies have been used as a starting point in evaluating the situation in the two other MS's. This was supplemented with further information from scientific literature and background information regarding the MS as such, including EUROSTAT data on farm and animal densities.

For all three infections, the Netherlands is a high density (i.e. high transmission risk) MS, with an also high introduction risk due to a lot of import and export. Because of this high risk situation, the country has (recent) experience with the detection and control of these epidemics. The Netherlands has also invested in fundamental epidemiological research regarding prevention and control of these epidemics, and tends to apply more rigorous control measures than the minimum that is foreseen in the EU regulations. The Netherlands has also invested in high quality surveillance and early detection systems, as one of the measures to

minimize the High Risk Period (HRP), i.e. the period between introduction of the infection in a country and its detection, followed by control measures. Minimizing the HRP has a very strong reducing effect on the total size of epidemics, especially in terms of infected herds.

Finland has a much lower farm and animal density, which leads to a relatively low risk of major epidemics of all three of these infections. Although detection may be somewhat slower than in the Netherlands, this is easily compensated by the much slower spread that can be expected in areas with lower farm density. Finland has a low risk and also little experience with the control of epidemics.

Romania is a MS with a substantial variability in farm types and especially the level of professionalism at which these farms are run differs amongst them. It comprises of large very professionally run farms which are found at a low density in this country, but also contains a large number of extremely small (backyard) farms, with only a few ducks, chickens, pigs and ruminants (high farm density and low animal density). The contact structures are strongly separated by farm type, but cross-infection is still likely, since backyard farms are found throughout the country. Control of CSF, using vaccination, is still not very successful, probably due to continued introduction of the infection via (illegal) cross-border contacts with the Ukraine (Twinning report, 2000). The country has experienced recent epidemics of AI and has experience with the detection and control of this infection too.

As such, these three MS's surely cover the diversity of the EU- wide epidemiological situation and are therefore good representatives of this spectrum.

Several aspects of the epidemiology are especially relevant for this project. Generally, good data to answer the questions regarding these aspects are available in the Netherlands. Less information is available from Finland and Romania. Therefore extrapolation methods are applied to estimate the effect of the different situation in these countries as compared to the Netherlands (or more comparable countries with good data on these aspects).

The specific aspects that are addressed here are:

- Expected epidemic size;
- Expected duration of the epidemic;
- The uncertainty in the epidemic size and the duration of the HRP and the duration of the epidemic;
- When relevant, we also discuss the likelihood and extent of spread and the estimated duration of the High Risk Period (HRP).

(The first two aspects incorporate an analysis of the efficacy of control measures):

Foot and Mouth Disease

The density of farms with FMD susceptible animals in Finland is much lower than in the Netherlands, which leads to far less transmission after the HRP, while during the HRP most transmission will be driven by animal transport, making it less dependent on farm density. Thus, the resulting epidemics in Finland will be comparable to those in low density area epidemics in the Netherlands.

The farm density in Romania is higher than the density in the Netherlands. However, if the backyard farms are not considered as separate farms, and we evaluate the village-farms as epidemiological units similar to the above, then the farm densities in Romania is similar to or lower than the density in Finland. We therefore expect that epidemics in Romania will behave similarly; although detection and reporting in backyard farms is probably different from detection and reporting in professional farms, it is hard to assess in which way this difference will influence an epidemic.

The Netherlands

In the present Dutch contingency plans for FMD outbreaks the vaccination-to-live is adopted. Recent studies on the on the effect of a vaccination-to-live strategy in an area of 2 km around infected farms showed that numbers of (preventively) culled animals decreases substantially compared to the previous applied strategy (ring culling in a 1or 2 km area) (Backer et al. 2009).

For the economic evaluation of the CRSS, the Dutch situation is taken as an example for densely populated areas in North-West Europe. However at present other MS's do not implement a vaccination-to-live strategy. Therefore for the Dutch situation two control scenarios were evaluated namely: 1) based on the present vaccination-to-live scenario and 2) a culling scenario in which besides infected farms also on farms in a radius of 1 km all susceptible animals are culled. In table 6.6 a and 6.6b the expected size and duration of outbreaks of FMD are given.

Table 6.6a: Estimated size of an outbreak of FMD in the Netherlands (EU strategy and vaccination–to-live)

	duration	cattle farms			pig farms			sheep farms		
	in days	Infected	Prev. culled	Vac.	Infected	Prev. culled	Vac.	Infected	Prev. culled	Vac.
Average	37	24	31	408	1	10	148	0.4	12	134
5% perc.	6	2	1	0	0	0	0	0	0	0
95% perc.	91	102	136	1808	6	58	742	2	38	590

(Modified after Backer et al., 2009)

Table 6.6b: Estimated size of an outbreak of FMD in the Netherlands (EU strategy and culling in 1 km around infected farms)

	duration	cattle farms			pig farms			sheep farms		
	in days	Infected	Prev. culled	Vac.	Infected	Prev. culled	Vac.	Infected	Prev. culled	Vac.
Average	30	16	151		1	59		0	47	
5% perc.	5	2	5		0	0		0	3	
95% perc.	75	58	723		3	344		2	175	

(Modified after Backer et al., 2009)

Finland

Summarizing, for Finland we find that an epidemic is expected to be characterized by (between brackets 5% and 95% percentile values): Number of infected farms 10 (3 – 50), the duration of the outbreak will be about 3 months (2 – 4). Those 10 farms are expected to have 300 cattle, 1000 pigs and 100 sheep.

Romania

An FMD epidemic is expected to infect about 20 (village-) farms (5 – 50), duration about 4 months (2 to 6) with a limited number of animals affected. We expect 50 cattle, 50 pigs and 100 sheep. The range in Romania is wide, since with a rather low probability (<5%) some of the professional farms will get infected, leading to a much higher estimate of the numbers of animals on affected farms (higher end estimate cattle 500 and pigs 2000 and 1000 sheep).

Classical Swine Fever

Substantial information is available regarding the risk of introduction of CSF for the Netherlands; also the spread and control of the infection are well studied. For Finland and Romania, an assessment will be based on the broad knowledge of, and experience with CSF especially in the Netherlands, but also in other European countries. Romania has had major problems with CSF in the last decade, and most pigs have been vaccinated during this period. The density of pig farms is quite high in the Netherlands and it is 20 times lower in Finland. In Romania the density of pig farms is extremely high, if all backyard farms are counted as separate farms. If the backyard farms are considered as one unit per village, then the farm density is more comparable to the pig farm density in the Netherlands. However, the strongly regulated animal transport in the

Netherlands will lead to a lower number of infected farms at first detection of the infection. In some areas in Romania controlling the epidemic may require extended control measures, similar to high density areas in Belgium and in the Netherlands.

The Netherlands

In the Netherlands the vaccination-to-live strategy is adopted contingency plans for CSF. Recent studies on the effect of a vaccination –to- live strategy in an area of 2 km around infected farms showed that numbers of (preventively) culled animals decreases substantially. In culling strategies in which farms in an area of 1 km around infected farms are culled the number of preventively culled farms is half the total number of vaccinated farms in vaccination strategies.

For the economic evaluation of the CRSS, the Dutch situation is taken as an example for densely populated areas in North-West Europe. However at present other MS's do not implement a vaccination-to-live strategy. Therefore for the Dutch situation two control scenarios were evaluated. 1) based on the present vaccination-to-live scenario and 2) a culling scenario in which besides on infected farms also on farms in a radius of 1 km all susceptible animals are culled.

In table 6.7a and 6.7b the expected size and duration of outbreaks of CSF are given.

Table 6.7a: Expected size of an outbreak of CSF in the Netherlands (EU strategy and vaccination–to-live)

	duration	fattening farm			breeding farms		
	in days	Infected	Prev. culled	Vac.	Infected	Prev. culled	Vac.
Average	61	6	3	54	3	1	26
5% perc.	6	1	0	0	0	0	0
95% perc.	160	18	12	237	10	6	113

(Modified after Bergevoet et al. 2007)

Table 6.7b: Expected size of an outbreak of CSF in the Netherlands (EU strategy and culling in 1 km)

	duration	fattening farm			breeding farms		
	in days	Infected	Prev. culled	Vac.	Infected	Prev. culled	Vac.
Average	64	6	26		3	13	
5% perc.	5	1	0		0	0	
95% perc.	184	22	99		10	46	

(Modified after Bergevoet et al. 2007)

Finland

If an epidemic occurs in Finland, we estimate that under normal EU control measures, this epidemic will be controlled quite easily, and depending on the area and the number of infected farms at the time of detection, the epidemic can vary from small to medium and can be characterised as follows(between brackets 5% and 95% percentile values): expected size of the outbreak 3 infected farms (1 to 40), duration 60 (30 - 90) days, and number of pigs on infected farms: 2500 (200 to 20 000).

Romania

If an epidemic occurs in Romania, while all pigs are susceptible (not vaccinated), than we expect a large epidemic, which will be difficult to control. It is difficult to assess the interaction between large professional farms and backyard farms. However, given the expected size of the epidemic, it is likely that professional farms will get affected too. To enable quantification of the epidemic size also under those conditions, we assume that vaccination will be applied, especially since vaccination against CSF has been used regularly in Romania.

Thus we expect 50 (village-) farms (5 to 500) to get infected. Duration will be 6 months (2 to 12) and the number of pigs involved will be 500 (200 to 20 000). Although many farms will get involved, the total number of pigs infected, remains rather low, because most backyard farms only have one or two pigs.

Highly Pathogenic Avian Influenza

The Netherlands

For the Netherlands there is a recent study available, which answers the main questions required. The density of poultry farms in the Netherlands is low, but locally there are areas with extremely high farm density.

Those are the areas where AI-epidemics can lead to major problems, while outbreaks in other areas are less likely and less problematic. For Finland and Romania, the assessment will be based on these results, put into perspective of the local situation with lower farm density and lower animal density, which reduces the expected scale of the epidemic substantially, and the size of these countries with low intensity infrastructure, which may lead to delayed implementation of control measures, as a negative aspect. Romania has recently experienced an H5N1 AI epidemic, which offers very important supporting information for this assessment[4].

Table 6.8.: Outbreaks of HPAI in the Netherlands (EU strategy +Culling in 1 km around infected farms)

	Duration	Poultry farms		
	In days	Infected	Prev. culled	Total culled
Average	47	84	214	297
5% perc.	0	1	11	12
95% perc.	99	235	334	548

(Source Backer et al., forthcoming.)

In Table 6.8 the expected duration and size of an epidemic of HPAI are presented. We find that an HPAI epidemic in a high density poultry area (more than 0.8 farms per km^2) in the Netherlands can be very costly, since a relatively large number of farms will get infected and even more need to be culled. In sparsely populated poultry areas (<0.2 farms per km^2) only a few farms will become infected, while even in medium populated poultry areas the number of infected farms easily rises over 100. To limit the extent of the outbreak besides EU requirements additional measures have to be taken. Culling in a radius of 1 km around infected farms is foreseen.

Although a large fraction of the Netherlands is sparsely populated with poultry farms, most farms are found in the medium or densely populated areas. Therefore, the probability of an epidemic of less than 10 farms is very small (<5%), while the probability of an epidemic of more than 100 farms is very large (>50%)

Finland

[4] Oral communications with veterinary service officials during Twinning projects Netherlands - Romania in 2002 – 2004

The density of poultry farms in Finland is high compared to the Netherlands; while the average farm size is much lower (100 to 500). It is not clear whether there are local clusters of very high density areas of poultry farms, but we assume a few smaller clusters, still with lower density than the Dutch high density areas. This aspect may actually affect the results strongly, but without more detailed spatial information, this cannot be addressed in detail. Based on this information we expect that an epidemic will affect on average 100 farms, ranging from 2 to 500, with a duration of 80 days (30 to 150 days) and 20 000 chickens (2000 to 500 000).

Romania

In 2005 and 2006 Romania had an AI H5N1 epidemic, which was probably introduced by wild birds. The epidemic mainly spread amongst the small backyard farms, and to control it, occasionally all poultry in villages was culled. Amongst the professional farms only a few became infected during those epidemics, probably caused by one introduction in the professional production chain.

Based on the distribution of large professional farms and numerous but small backyard farms with much higher transmission risk, we can either expect a rather small epidemic in professional farms or an epidemic in many very small farms. Villages or neighbourhoods with numerous backyard farms could be addressed as risk units, because of the large interaction between (free ranging) poultry within a village. That also implies that if animals in a village are found positive, then the whole poultry flock of the village needs to be assessed and possibly culled. Such a “village-farm” is still much smaller in size than professional farms, but due to the very open contact structure, they contribute more to transmission between farms. Based on these aspects and the differences in farm density, we estimated the size of an AI epidemic in Romania. The average density of chicken farms is higher than the critical density (calculated in the Netherlands) above which the basic EU control measures will be not sufficient to control the epidemic. However, when the villages are clustered as a unit, the density of farms immediately reduces significantly, to a level substantially below the critical density. In the HRP we expect fast spread due to the open structure of the backyard farms, thus the number of infected farms at detection is assumed to be high, but once control of the epidemic has started, in most areas control is expected to be quite effective.

All together we estimate the size of the total epidemic in number of farms comparable to the Netherlands, while the duration of the total epidemic will be shorter and the number of animals culled will be much lower. The probability of professional farms getting involved in an epidemic is low compared to backyard farms.

In numbers: the expected number of (village-) farms infected and culled is estimated at 50, the duration of the epidemic is estimated at 50 days and the number of animals culled is estimated at 5000. The 95% percentile 450 farms, 90 days and 1.000.000 animals. The skewed tail of the distribution leads to an enormous increase in the number of animals, because of the potential epidemic in professional farms.

6.2.2. Economic risk analysis

In this paragraph the results of the economic risk analysis are presented for the proposed CRSS in comparison with the current reimbursement system.

Table 6.9 gives the probability that a 10 year period will elapse without an outbreak in the MS's under research, as well as the average number of outbreaks.

Table 6.9.: Probability of NO outbreak in a 10 year period

	Disease	Netherlands	Finland	Romania
Probability of 10 years with no outbreak	FMD	54%	80%	76%
	CSF	62%	91%	3%
	AI	35%	82%	1%
	FMD/CSF/AI	12%	60%	0%
Expected number of outbreaks per 10 year period	FMD	0.61	0.22	0.26
	CSF	0.48	0.10	2.91
	AI	0.96	0.20	3.91
	FMD/CSF/AI	2.06	0.51	6.97

Given the assumptions made the risk of an outbreak for Finland is relatively limited.

The average probability is 60% that Finland will have no claim from the Veterinary Fund in a 10 year period. For Romania this probability of having no outbreaks and thus no claims is approximately 0%, which is mainly caused by a high probability of having (multiple) outbreaks of CSF an AI. For the Netherlands the probability of having an outbreak is moderate for the diseases separately. However the joint probability of having no outbreak at all is only 12% during the whole period.

The expected number of outbreaks varies between the three MS's accordingly. Finland is expected to be confronted with 0.51 outbreaks per 10 year period of either FMD, CSF or AI, whereas in Romania this is 6.97 outbreaks per 10 year period.

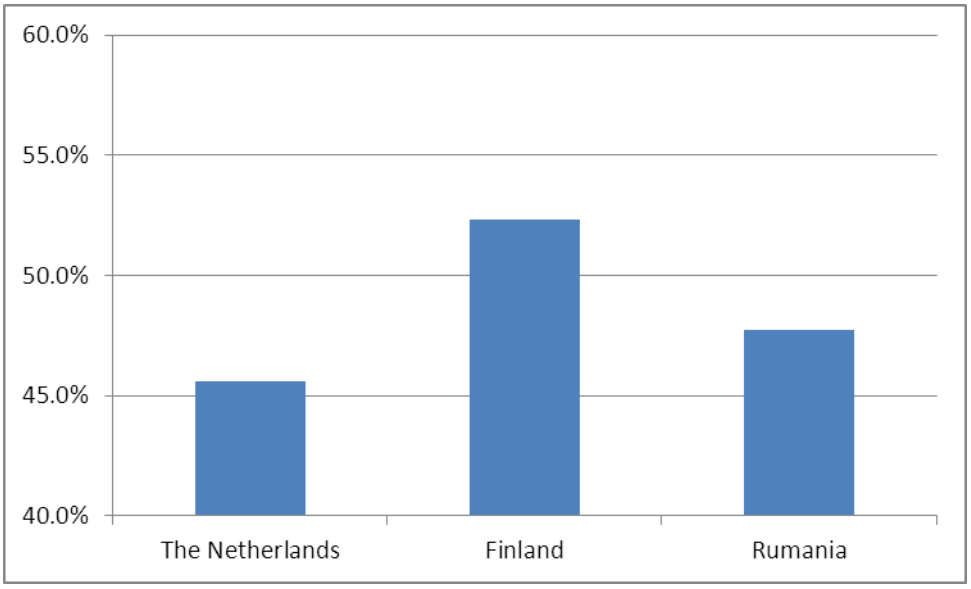


Figure 6.3 Reimbursement percentages at the end of a 10 year period

The expected reimbursement percentage at the end of the first 10 year period is shown in Figure 6.3. The expected reimbursement percentage amounts to 52%, 48% and 46% for Finland, Romania and the Netherlands respectively (Figure 6.3). On average, Finland will move upward on the BM scale and the Netherlands and Romania will descent in comparison to the initial reimbursement percentage of 50%. In a favourable disease free period each MS will have achieved the maximum reimbursement percentage of 60%. However the negative impact of especially large outbreaks (10% reduction) is substantial.

The average direct costs per outbreak for the MS's under study are presented in table 6.10. The highest average costs per outbreak are expected for FMD in the Netherlands (46.5 million € per outbreak in the vaccination-to-live scenario and 70.9 million € in the culling in a 1 km radius around infected farms). Lowest average costs are simulated for FMD outbreaks in Romania (11.8 million € per outbreak).

Commission Regulation (EC) no 349/2005 defines which costs made by a MS to control are **eligible** for compensation by the EU. Of the calculated direct costs these are the cost related to Compensation of farmers for culled animals, culling of animals and disinfection of the premises, destruction of culled animals and in case of vaccination the costs of vaccination. Direct costs that are ***not* eligible** for compensation are costs related to screening and sampling (including materials needed), taxation and costs to enforce the movement restrictions during an outbreak. These costs typically have to be borne by the government of the MS.

Table 6.10: Average total direct costs of an outbreak of FMD, CSF and AI (million €)

		Netherlands		Finland	Romania
		(vaccination 2km)	(culling 1 km)		
FMD	Total direct costs/outbreak	46.5	70.9	27.9	11.8
	Of which Eligible under EC 349/2005	39.5	43.5	0.7	0.1
CSF	Total direct costs/outbreak	16.0	21.2	18.0	24.5
	Of which Eligible under EC 349/2005	6.9	6.9	0.8	0.1
AI	Total direct costs/outbreak		16.0	14.8	12.5
	Of which Eligible under EC 349/2005		4.5	0.1	0.1

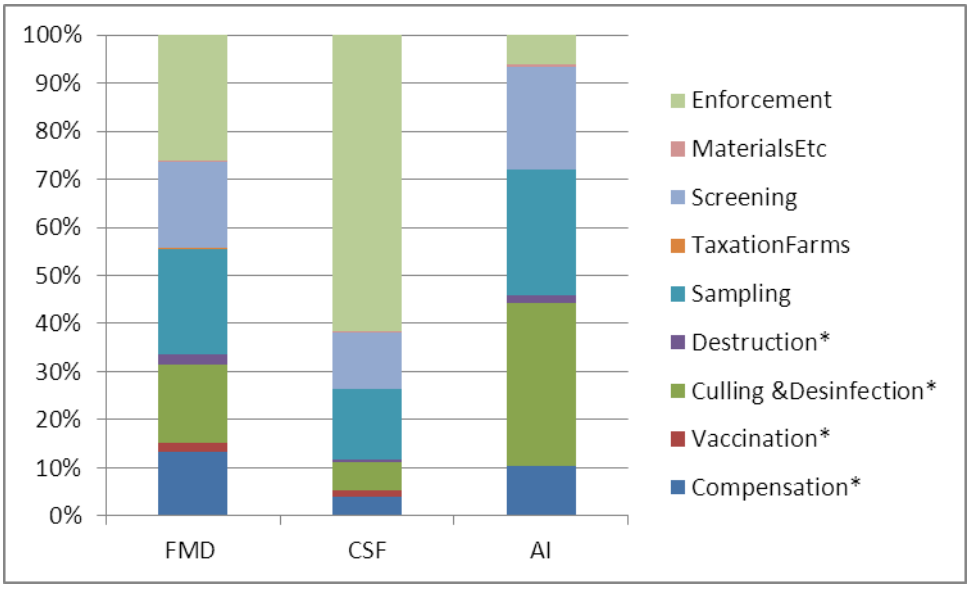
(Average result of 20000 iterations)

For all three MS's, the distribution of outbreak costs is highly skewed. Those outbreaks in which a large number of farms are involved and thus cause high associated costs affect the average outcome considerably. The median is less profound than the average implying that most outbreaks will have substantially lower costs than the reported average outcomes.

Although the frequency of outbreaks in Finland is relative low, the average direct costs of an outbreak are rather high. Note that the average direct costs per outbreak for FMD outbreaks in Finland are comparable to those published by Niemi (2008).

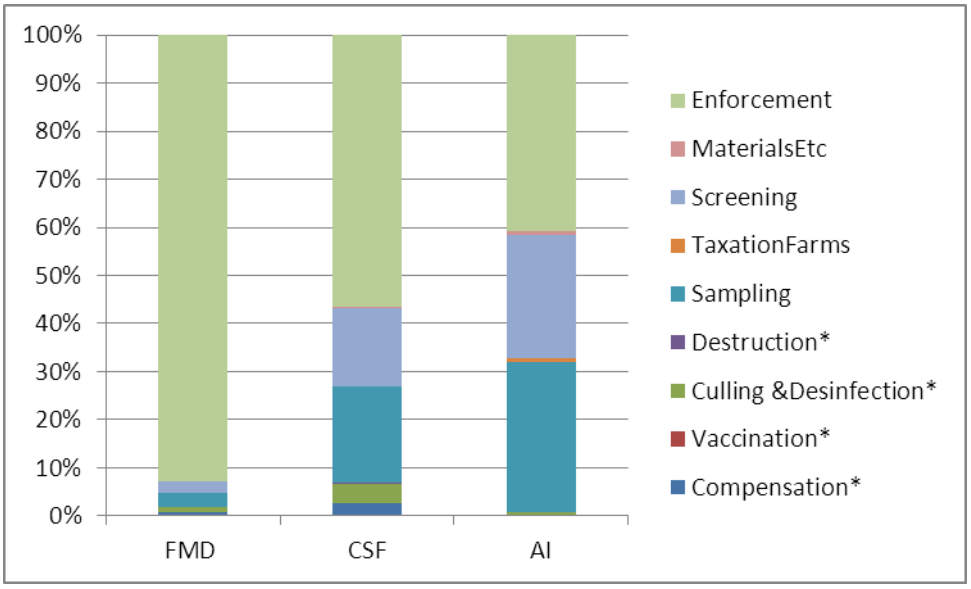
The average direct costs of an outbreak of FMD and CSF in the Netherlands in the vaccination-to-live strategy are substantially lower than the incurred costs of outbreaks in the strategy in which culling in a 1 km radius around infected farms is applied.

With respect to the direct losses, Figures 6.4a, 6.4b, and 6.4c reveal that the relative importance of the costing components differ between MS's and diseases. In sparsely populated livestock areas, such as Finland, direct losses are primarily caused by enforcement costs, which costs are not eligible for compensation under Regulation EC349/2005 In densely populated livestock areas, such as the Netherlands, direct losses are originating from a mixture of costing components (e.g., enforcement, screening, cost of culling animals, disinfection of farms and sampling). Diseases which cause relative small outbreaks are associated with relative high enforcement costs and relative low eligible costs (e, compensation, cost of culling and destruction of animals, disinfection of farms and screening and sampling costs).



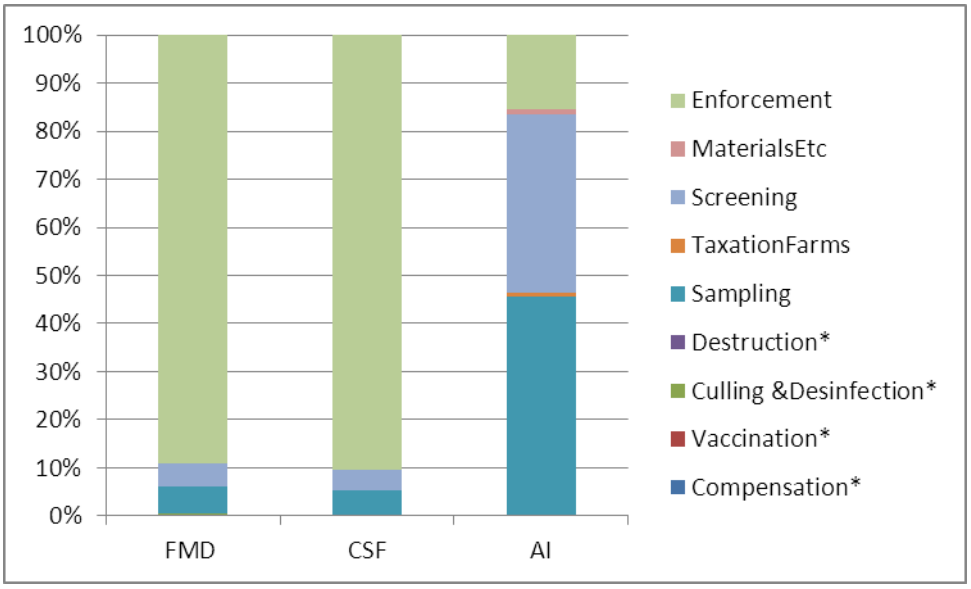
*marked costs are eligible for compensation under regulation EC 349/2005

Figure 6.4a Distribution of direct costs between different cost components in the Netherlands



*marked costs are eligible for compensation under regulation EC 349/2005

Figure 6.5b Distribution of direct costs between different cost components in Finland



*marked costs are eligible for compensation under regulation EC 349/2005

Figure 6.5c Distribution of direct costs between different cost components in Romania

Expected total costs in a 10 year period

The product of the outbreak probability and the cost per epidemic results in the total costs per disease. The average direct (both eligible and non-eligible) losses are particularly high for FMD in the Netherlands compared to Finland and Romania (Table 6.11). Also AI outbreaks in the Netherlands are more expensive to control compared to AI outbreaks in Finland and Romania.

Analysing the allocation between costing components reveals that eligible costs can be substantial in densely populated livestock areas (e.g., The Netherlands), both in absolute values and in relative terms. In mainly medium or sparsely populated livestock areas (e.g., Finland and Romania) eligible costs are relative minor compared to the more general non-eligible enforcement costs. The reason for this is that in sparsely populated area the number of farms and the number of animals that have to be culled is small, whereas in the same area as in densely populated area surveillance activities and movement restrictions have to be applied.

Table 6.11: Expected future average total direct costs of FMD, CSF and AI in a 10 year period and allocation between eligible and non-eligible cost according to EC no. 349/2005

		Cost in million €				Percentage	
		Total	Non-eligible costs	Eligible costs		Non-eligible costs	Eligible costs
The Netherlands (vaccination)							
	FMD	30.45	17.54	12.91		58%	42%
	CSF	7.72	6.79	0.93		88%	12%
The Netherlands (culling strategy)							
	FMD	46.74	18.97	27.77		41%	59%
	CSF	10.33	7.08	3.25		69%	31%
	AI	16.12	12.02	4.10		75%	25%
Finland							
	FMD	5.06	4.92	0.14		97%	3%
	CSF	1.32	1.25	0.08		94%	6%
	AI	2.96	2.95	0.01		100%	0%
Romania							
	FMD	3.38	3.36	0.02		99%	1%
	CSF	51.76	51.59	0.16		100%	0%
	AI	36.00	35.97	0.04		100%	0%

EU contribution under a Bonus Malus system

The final step in the mathematical modelling approach is to calculate the expected total direct costs and EU contribution under the BM compared with the present EU compensation scheme. The average EU costs for compensating eligible costs of infections with CSF, FMD and AI are merged for a 10 year period (Table 6.12).

Table 6.12: Expected future eligible costs for the EU Veterinary Fund in a 10 year period under BM or present system (in Million €)

	Average	5%	50%	95%
The Netherlands (vaccination)				
Average EU costs /period (€)- BM	13.34	0	8.33	46.63
Average EU costs/period(€) – present system	15.15	0	8.59	55.36
The Netherlands (culling)				
Average EU costs /period (€)- BM	15.49	0	5.25	78.69
Average EU costs/period(€) – present system	17.75	0	5.13	93.89
Finland				
Average EU costs /period (€)- BM	0.12	0	0	0.52
Average EU costs/period(€) – present system	0.12	0	0	0.48
Romania				
Average EU costs /period (€)- BM	0.11	0.03	0.1	0.20
Average EU costs/period(€) – present system	0.11	0.03	0.1	0.20

On average, the BM has a limited impact for the Veterinary fund if focused on those MS's with infrequent outbreaks and sparsely populated livestock areas (e.g., Finland). MS's with densely populated livestock areas (e.g., the Netherlands) will receive under the hypothetical BM on average a lower reimbursement .Please note again that this will be an overestimation of the EU and MS costs in the new situation since the effect of potential additional preventive measures due to the CRSS are difficult to ascertain and not included in this analysis.

Irrespectively of livestock density or frequency a MS will be confronted with a lower reimbursement if they will incur one or more large outbreaks in the coming 10 year period. For the BM example, considering the distribution of total cost for the Veterinary Fund there is a 95-percent probability that EU payments to the Netherlands are less than 46.6million € per 10 years under the vaccination-to-live strategy and 78.6 million € under the culling strategy . Alternatively formulated, there is a five-percent probability that the EU payments to the Netherlands exceed more than this amount. Under the present system there is a 5-percent probability that EU payments to the Netherlands exceed 55.3 million € per 10 years for the vaccination-to-live strategy and 93.8 million € for the culling strategy.

6.2.3. Sensitivity analysis

The BM has two specific characteristics in compensating future outbreaks, namely the bonus element and the malus element. In addition, a reduction is foreseen for on-going large outbreaks (10% in the current hypothetical example). The impact of these three distinct characteristics is determined by analysing their impact separately (table 6.13)

Table 6.13: Expected future eligible costs for the Veterinary Fund in a 10 year period under (a partial) BM system or present system (in *Million €)

	BM	Only Bonus[1]	Only Malus[2]	Only reduction reimbursement large outbreaks[3]	Present system
The Netherlands (vaccination 2km)					
Average EU costs /period (€)	13.35	16.34	13.79	13.20	15.16
The Netherlands (culling 1km)					
Average EU costs /period (€)	15.49	18.14	16.19	15.22	17.75
Finland					
Average EU costs /period (€)	0.12	0.14	0.12	0.10	0.12
Romania					
Average EU costs /period (€)	0.11	0.11	0.10	0.11	0.11

[1] 1% bonus for each year without an outbreak, [2] 1 % reduction for each outbreak < 1 M€, 5% reduction in future Reimbursement rate for each outbreak between 1 and 9 M€, 10% reduction for each outbreak > 9 M €, [3]10% reduction in present claim that exceeds 9 M€

All MS's will be rewarded with a higher reimbursement class if only the bonus element is taken into consideration. This system will be more advantageous for those MS's with infrequent outbreaks and thus less claims from the Veterinary Fund in the 10 year period under consideration (e.g., Finland). If only the malus element is taken into consideration all MS's will be penalised. To which extend they will be penalised depends on their claim statistics. MS's with relative many or substantial claims from the Veterinary Fund will end up in the lowest reimbursement class (e.g., Romania and the Netherlands). A reduction of 10% for ongoing large outbreaks without considering a BM for future outbreaks will also reduce the total costs for the Veterinary Fund. MS's with large claims will be reimbursed more often at lower levels (e.g., the Netherlands).

The justification to balance costs and responsibilities between EU institutions, MS's and the farming sector is to maximise the effectiveness and efficiency on prevention and eradication in order to reduce the impact of livestock epidemics on the society as a whole. The implementation of the CRSS will increase the incentives for MS's and the farming sector to decrease the risk of epidemic livestock diseases. The inclusion of incentives for additional measures in the CRSS (such as enhanced biosecurity and animal disease surveillance) will encourage stakeholders to implement more preventive systems and more effective eradication strategies.

To what extend each of the CRSS options would help to achieve the objectives pursued by the initiative is not the object of this study. However to illustrate the potential of enhanced preventive behaviour and early reporting the impact of a 20% reduction of occurrence and outbreak size is quantitative assessed (table 6.14).

In relation to the analysis it can be stated that if the probability of occurrence and outbreak size is reduced the total costs for the Veterinary Fund will not only be reduced, but also costs borne by the MS's and the farming sector will be reduced as well. The impact is most profound especially for MS's with frequent outbreaks (e.g., Romania) or large outbreaks (e.g., the Netherlands).

Table 6.14: Total costs for the Veterinary Fund in a 10 year period under BM or present system with assuming a more effective and efficient prevention and eradication strategy (in Million €)

	BM	BM + 20% reduction occurrence	BM+ 20% reduction outbreak size	BM+ 20% reduction occurrence and outbreak size	Present system
The Netherlands (vaccination 2km)					
Average EU costs /period (€)	13.35	16.34	13.79	13.20	15.16
The Netherlands (culling 1 km)					
Average EU costs /period (€)	15.49	18.14	16.19	15.22	17.75
Finland					
Average EU costs /period (€)	0.12	0.14	0..12	0.10	0.12
Romania					
Average EU costs /period (€)	0.11	0.11	0.10	0.11	0.11

Impact of a bonus for implementing a PPP

Only a limited number of MS's have implemented a PPP. However such a PPP is considered to be a vital component of the CRSS. It provides an incentive for the responsibility sharing between government and stakeholders. Such a responsibility sharing is expected to contribute to a limitation of both the frequency of occurrence and the (financial) impact of an outbreak. This impact does not only reduce the financial load for the Veterinary Fund but foremost limits the impact for the stakeholders and government in the affected MS. Implementation of a PPP is expected not only to reduce the direct costs but also reduces the consequential losses for MS's stakeholders.

An incentive for implementing such a PPP would be an (additional) bonus on the reimbursement rate provided by the Veterinary Fund. To get an insight into the effects of such a bonus on the cost for the Veterinary Fund additional calculations were performed. In these calculations a bonus of 5% for the three MS for implementing a PPP was assumed. In Figure 6.6 to 6.8 the financial effects of different reductions in either frequencies of outbreaks or extent of the outbreak is given for the MS's NL, FL, and RO.

For all three MS's similar results can be seen. Both reduction of impact of the damage as well as the reduction of probability of outbreaks and especially the combination of both have a substantial impact on the total expected costs in a 10 year period. As can be seen a reduction in the damage of an outbreak of 22% or a reduction in probability of outbreaks of around 30%[5] or a 14 % reduction in case of a combination of damage and frequency would offset the extra cost of a 5% higher reimbursement. These reductions of damage reduction and reduction in outbreak frequency are likely to be feasible.

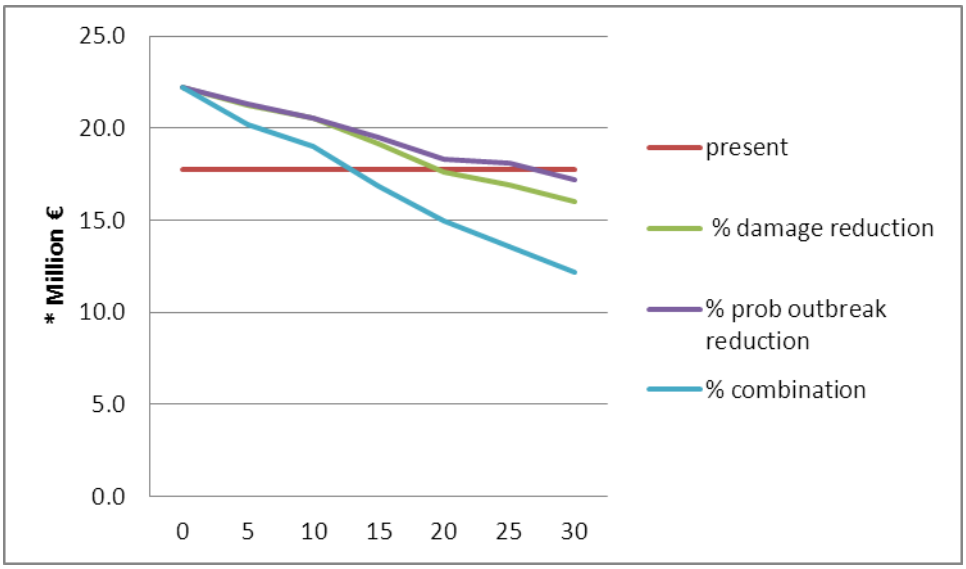


Figure 6.6 The Netherlands: Total expected claim for the Veterinary Fund for a 10 year period for different reductions in frequency and/or impact of outbreaks.

[5] This means that for example for RO the cost for the budget of the EU Veterinary Fund are neutral when the frequency of FMD increases from once per 35 years to once per 46 years, for CSF from once per 3 years to once per 4 years and for AI from once per 2 years to once per 3 years.

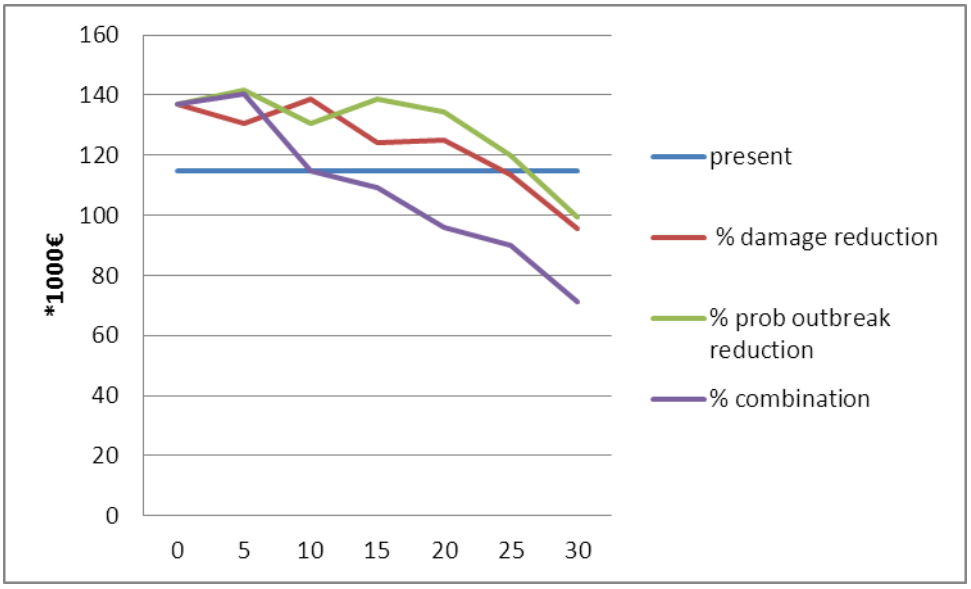


Figure 6.7 Finland Total expected claim for the Veterinary Fund for a 10 year period for different reductions in frequency and/or impact of outbreaks (in 1000€).

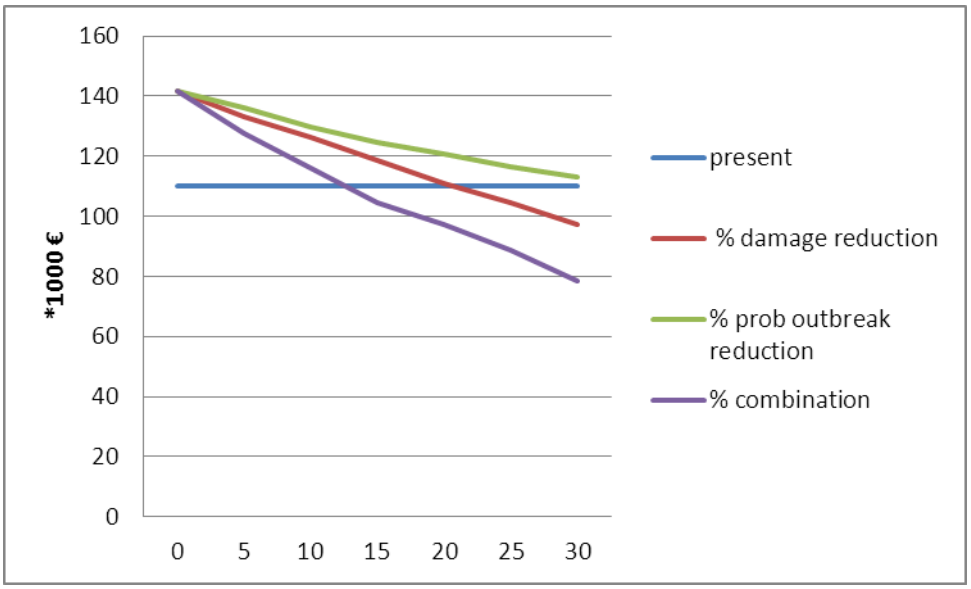


Figure 6.8 Romania: Total expected claim for the Veterinary Fund for a 10 year period for different reductions in frequency and/or impact of outbreaks (in 1000€).

6.3. Summary

In summary, the impact of a reimbursement reduction in case of large outbreaks in combination with a Bonus and Malus for future outbreaks will reduce the budgetary impact for the Veterinary Fund considerably. The levels of the hypothetical BM system were arbitrarily chosen and merely served as an example. More extreme values in the BM system will decrease the demands on the Veterinary Budget, and vice versa (and affecting the potential additional preventive measures due to the CRSS).

7. Evaluation of the CRSS

The proposed CRSS is compared with the current system on basis of the criteria as defined in Chapter 1. As discussed earlier the CRSS consists of a Public Private Partnership (PPP) to cover the MS contribution of the direct costs of an outbreak, and a Bonus Malus (BM) system to cover the EU contribution.

Criteria	Criteria met?
To achieve a more **prevention-driven and incentive oriented approach** of the EU financial aid for the control and eradication of animal diseases.	 See comment 1
To **balance the distribution of costs and responsibilities** between competent authorities, EU institutions and the farming sector.	 See comment 2
To maximise **effectiveness and efficiency on prevention and eradication** of animal diseases.	 See comment 3
Establishing **simple and clear rules** for EU co-financing of losses due to animal diseases and ensuring consistency and coherence of the several compensation mechanisms established at EU level.	 See comment 4
To **prevent distortion of competition between MS's**.	 See comment 5
To **avoid risks** for the EU and the MS budgets.	 See comment 6
Ensure **economic sustainability** of farming business in the EU:	
Ensure **consistency** with the animal health, animal welfare and food safety policy objectives as well as broader EU policies (climate change, sustainability) and international commitments of the EU (WTO).	? expert and stakeholder consultation

- **Comment 1: Implementation of preventive measures included and rewarded.**

If a MS takes effective preventive measures the MS will be rewarded by a lower incidence of outbreaks and as such a higher reimbursement rate in case of an outbreak. The other effect of effective preventive measures is that in case of an outbreak the impact of the outbreak will be more limited. Implementing a PPP to finance the MS's share means communication with the stakeholders since it involves not only cost sharing but also responsibility sharing. PPP are best organized in the different MS to be able to adequately implement national and regional differences. These PPP's can stimulate their stakeholders (i.e. farmers) to implement preventive measures by premium differentiation in the PPP and through the possibilities for MS to subsidize the implementation of preventive measures. If the system is organized such that in case of a small outbreak there will not be a reduction in reimbursement class there will be an incentive for a MS to timely report an outbreak.

- **Comment 2: Balance the distribution of costs and responsibilities.**

A vital part of the MS PPP is sharing costs and responsibilities amongst public and private sector. An agreement about responsibilities sharing has to be reached before the details on a cost sharing programme can be determined. In a recent report by the England Advisory Group on Responsibility and Cost sharing (December 2010), this is given substantial attention. This Advisory group emphasised that credible arrangements for sharing responsibility have to be established before decisions on cost sharing can be properly debated and defined. They also indicate that determining an appropriate base for sharing is a highly complex matter and it is in their opinion unlikely there is to be a "one size fits all" solution to cost sharing but there is a need for a systematic approach (England Advisory Group on Responsibility and Cost sharing, 2010). The differences in structure of the PPP in those MS that already have a PPP in place and the time it took establish such systems indicate that it is unlikely that a single PPP that can be used by all MS's.

- **Comment 3: Taking into account the differences between member states in risk and impact of outbreaks of contagious diseases.**

The BM system rewards MS's with low risk profiles by the fact that the percentage of the direct costs reimbursed is higher since the occurrence of outbreaks is less frequent. Also the fact that there is a difference in the drop in reimbursement class depending on the size of the outbreak differentiates between MS's that have small outbreaks compared to MS's that have to cope with more substantial outbreaks.

- **Comment 4a: Simple and easy to implement.**

The CRSS program is relative easy to implement because of its simplicity (i.e., based on claim history). Moreover, it is also straight forward to monitor the class status of each MS by the EU. Our suggestion would be to start at the present percentage covered by the EU of the direct costs of an outbreak of CSF, HPAI or FMD (50% EU compensation). MS's with a low incidence of disease outbreaks will gradually move up in the percentage covered, and the MS's with a higher incidence will move down. As described in comment 2, the PPP will take a longer time to be established.

In countries which already implemented a PPP a differentiation in premium paid by different livestock owners is often based on the livestock sector and farm type. This differentiation is based on risk profile and ability to bear costs. In the case of implementing the CRSS in MS in which there is a large number of holdings with backyard farming or non-commercial holding the CRSS is faced with several challenges. The first challenge is registration of livestock owners, the second is to find incentives to motivate compliance to regulations and the third is to collect levies cost effectively. Whether it is worth the effort to include backyard and non-commercial holdings in the CRSS has to be based on epidemiological, economic and political arguments.

The main reason for farmers to participate in a CRSS is the responsibility sharing. In many MS farmers lack a voice in the decision making process regarding prevention and management of outbreaks of contagious diseases whereas they consider themselves as most affected by the outbreak. Modulation of control strategies based on the different interests of livestock sectors and in consultation with the different livestock sectors might be a way to raise awareness and commitment.

- **Comment 4b: Transition period.**

As the results from WP 2 shows, at present there are large differences between MS's in how they have organized the financing of the direct costs related to outbreaks of contagious disease in livestock. In case the new BM system with a compulsory PPP would be introduced there needs to be a transition period for MS's to adapt to this new situation (see also Comment 2). Especially for a MS in which at present the direct costs are fully covered by the government this might by a major transition, to have the PPP's established. To enable this transition temporally support from EU might be needed (for example to finance initial costs for establishing the PPP's).

There still needs to be a decision on whether sectors with low paying capacity need support to pay the levies in the first years after establishment of the PPP.

If PPP's will be made compulsory by the EU, there should be laid down certain criteria on:

- The (minimum) amount of levy paid by farmers (i.e., risk retention primary sector) and possibly contribution by other private parties;

- MS contributions (i.e., risk retention public).

Comment 4c: Consequential/indirect losses.

The extend farmers suffer large consequential/indirect losses due to an outbreak differs between MS's. For example large differences between MS exist in e.g. livestock density of production areas or export position. Therefore we suggest *excluding* the coverage of consequential losses from the EU Veterinary Fund.

It has to be investigated how MS's can be supported, in case they want to establish a scheme that supports farmers that suffer from consequential losses. Such a scheme might improve the willingness for farmers to participate in a PPP to cover the MS part of the direct costs. Introducing the coverage of consequential/indirect losses adjacent to the CRSS could introduce a kind of virtuous circle with two directions bottom-up top-down in three steps:

1. Farmers could be subsidized for their participation in PPPs including the mutual insurance to cover the consequential/indirect losses; this participation is also/alternatively included among the factors considered to differentiate levies (PPP), resulting in a reduced financial contribution.
2. Governments are motivated to encourage the primary sector participation in this mutual (and in the PPP, if not compulsory), by an additional bonus (incentive) recognised at EU level after reaching a targeted percentage.
3. In terms of specific objectives, the EU benefits from this increased participation as the two levels of the CRSS-PPP are more interdependent and all actors involved will let it function as a single system, that will be more integrated and, as a consequence, more "shared": the benefit will consequentially stream to all MSs, in particular in the M/L term.

An integrated CRSS in which direct and consequential/indirect costs are covered can enhance the acceptability and feasibility of the CRSS since the following aspects of the CRSS are further enhanced in comparison with an approach in which only direct losses are covered. A combination is likely to result in a more prevention driven and incentive oriented approach and a balanced distribution between costs and responsibilities and as a result more effective and efficient prevention and eradication and a farming business in which economic sustainability is ensured.

- **Comment 5: To prevent distortion of competition between MS's.**

Given the differences in conditions between different livestock sectors in the MS's and differences between MS's it is always a challenge to find a system that prevents distortion of competition between MS's. The

possible distortion of competition introduced by the current different compensation schemes in place in different MS's is negligible compared with other differences in taxation, income, etc. that exist in the EU. The proposed BM system is more just than the previous system in that it rewards MS that do not have large and costly outbreaks of epizootics and puts a large part of the costs on those MS's that have. Having a large concentrated livestock sector in a MS has infrastructural benefits for farmers in those periods the area is not confronted with outbreaks of contagious diseases. These benefits become major drawbacks in times of outbreaks and contribute to the possible spread of the disease and to an extent cost of an outbreak.

- **Comment 6: Risk for the EU budget.**

Although the risk for the EU budget is assumed to be less than in the present situation there might be situations (e.g. a large and costly outbreaks in several MS at a time) that there will be a large claim on the EU budget. Part of this is cushioned by the lower reimbursement in case the claim exceeds a fixed amount.

Given the irregular occurrence of major outbreaks of livestock epidemics the budget planning of the Veterinary Fund within the present annual framework remains challenging. There is a risk of extending the annual budget, which has to be borne by the EU budget. However over a longer period the fluctuation is more limited. Perhaps it is possible to re-insure this remaining risk, but this probably will be a costly option. A reduction of reimbursement to MS in case of a large outbreak decreases the total costs for the EU budget substantially, however the MS are faced with substantial additional costs at a moment of crisis. This might have a negative impact on the feasibility of the system. Solutions in which a strategic reserve must be maintained should be considered.

Conclusion

In conclusion, the proposed CRSS to cover the costs of outbreaks of contagious diseases which consists of a BM system for the reimbursement of part of the direct cost by the EU and a PPP between MS's government and farmers that covers the rest of the direct costs has substantial benefits compared to the current system. However implementation of a new system for CRSS requires careful preparation, negotiations and trust building in which EU, MS, and farmers should be involved.

8. Stakeholder consultation

To evaluate the outcomes and prioritise the different options a stakeholder consultation has been carried out. Representatives of the livestock sectors, processing industry, and veterinarians participated in the stakeholder consultation (participants in Annex 8).

The aim of the consultation was to discuss the proposed harmonized EU framework for a cost and responsibility sharing scheme (CRSS) for animal diseases. Participants were asked to prioritise the different components and to rank the possible policy alternatives.

For this prioritisation, the technique of Participative Multi Criteria Analysis (PMCA) has been used. PMCA is a technique that allows different stakeholders to collectively choose between different policy options. This technique is used successfully in the prioritization of eradication programs for AI or Q-fever in the Netherlands (Beekman, et al. 2007). It allows stakeholders and policy makers to evaluate and compare different policy alternatives.

The stakeholders were asked to assess the importance of the different CRSS components and rank the possible policy alternatives regarding these components. On their request, the participants were given the opportunity to consult their constituencies and send in their final scores and comments within a limited period after the workshop. The responses are in table 8.1 an 8.2. From Copa-Cogeca, A.V.E.C. and FESASS additional comments were received are included in Annex 8.

8.1. Assessment of the importance of the different CRSS components

The participants were asked to evaluate the relative emphasis of the three components in relation to each other. The proposed CRSS components were:

1. The Bonus Malus system (BM) for direct costs;
2. A Public Private Partnership (PPP) in each MS that covers the direct costs of a disease outbreak;
3. Coverage of indirect costs

This ranking was done by distributing 100 points among the three options. The results are in Table 8.1.

Table 8.1: Distribution of points among the different components of the CRSS by the representatives of the stakeholder organisations

Component of CRSS	*Copa Cogeca*	*Clitravi*	*AVEC*	*UECBV*	*FESASS*	*FVE*
The Bonus Malus system (BM)	0	20	20	20	0	50
Public Private Partnership to cover direct costs (PPP)	0	50	70	50	20	30
Part of indirect costs covered	100	30	10	30	80	20

Both the representatives of the European farmers' organisation (Copa-Cogeca) and FESASS put most emphasis on (partial) coverage of *indirect* costs for farmers as component of a cost and responsibility sharing scheme. In their opinion, indirect costs are important losses for the farms. Besides farmers are often faced with threats over which they have no control. The total indirect losses are related to decisions taken by the competent authorities.

Furthermore, Copa-Cogeca and FESASS both give no points to the proposed Bonus Malus system between EU and MS's. Their main reason is that the proposed BM is not sector-related. Livestock sectors within a MS might therefore not be credited for work already carried out in the area of biosecurity and disease prevention, and instead bear the risk of lower compensations due to outbreaks in other sectors with less high standards of bio-security. Furthermore, the consequences of the proposed BM for farmers are not evaluated.

Copa-Cogeca does not give any emphasis to Public Private Partnerships as a component of a new CRSS. In their opinion the decision to implement a PPP for coverage of direct costs should be voluntary for each MS.

The representatives of the processing industry and trade (Clitravi, AVEC, and UECBV) consider the Public Private Partnership the most important component of a new CRSS. They put less emphasis on coverage of indirect costs for farmers or a Bonus Malus system between EU and MS. FVE argues that a BM system could be a stimulus for MS to put more emphasis on farms' biosecurity.

8.2. Ranking of the different policy alternatives

Combining the different components of the CRSS gives eight potential options. In Table 8.2 the different options are presented. Option A (no BM system, a voluntary PPP and no inclusion of direct costs) represents the present situation in the EU and option H (BM system in place, a compulsory PPP and coverage of indirect costs) is the most advanced system. Participants were asked to prioritize the different options, where the most preferred option gets rank 1. The ranking of the stakeholders is shown in Table 8.2.

Table 8.2: Ranking of the different policy alternatives by the stakeholders

				Livestock sector		Processors/ trade		Others	
	BM	**PPP**	**Coverage of part of indirect costs**	*Copa Cogeca*	*Clitravi*	*AVEC*	*UECBV*	*FESASS*	*FVE*
A	No	Voluntary	Excluded	-	7	8	7	-	
B	No	Voluntary	Included	**1**	3	6	3	**1**	
C	No	Compulsory	Excluded	-	5	**1**	5	-	
D	No	Compulsory	Included	-	**1**	3	**1**	2	
E	Yes	Voluntary	Excluded	-	8	7	8	-	
F	Yes	Voluntary	Included	-	4	5	4	-	**3**
G	Yes	Compulsory	Excluded	-	6	4	6	-	**2**
H	Yes	Compulsory	Included	-	2	2	2	-	**1**

* Rank 1 = the most preferred option; rank 8 = the least preferred option.

Some representatives ranked all the options whereas others limited themselves to the option they considered acceptable.

Table 8.2 shows that both the representatives Copa-Cogeca and FESASS are in favour of policy alternative B: **no** Bonus Malus system, **voluntary** possibility for each MS to decide whether or not to implement a public private partnership to cover direct losses and **including** covering of a part of the indirect costs for farmers. The representatives of the FEASS could as second best also accept the alternative with compulsory instead of voluntary PPP for coverage of direct costs, but note that in their opinion a PPP is not the right tool to share responsibilities and costs for disease outbreaks over which farmers have little or no control. The alternatives with a BM or those excluding compensation of indirect costs are not a feasible option for both Copa-Cogeca and FESASS.

The representatives of processing industry and trade (Clitravi, AVEC and UECBV) are in favour of the alternatives with **no** Bonus Malus system between EU and MSs and a **compulsory** Public Private Partnership for coverage of direct losses. They differ in opinion on including or not including (part of) indirect losses in the CRSS. The second best alternative for Clitravi, AVEC and UECBV is alternative H which includes a BM system between EU and MS and includes coverage of certain indirect losses. This is the preferred option for FVE.

8.3. The workshop: main additional comments and conclusion

The views of the participants in the workshop about the importance of the different components of the proposed CRSS and the ranking of related policy alternatives are shown above.

The main additional comments of the workshop participants are summarised below:

- Representatives of the processing industry note that direct costs do not only concern farmers: other parts in the chain might also have direct losses as a result of disease outbreak. This should be included in a CRSS.
- The proposed BM system only concerns the relationship between EU and MS. Representatives of the processing industry consider it necessary to look at a BM system at all levels. Business operators could by assessment of their government be placed in a risk category (BM on MS-farmer level).
- Also take into account the risk that a Malus on MS level might be distributed immediately to the micro level (the farmers). MSs should not be allowed to do so, as reimbursement reduction can be due to their own failure.
- Thresholds and maximums in reimbursement should not be fixed in certain amounts: it must be related to the number of animals in a MS or something comparable.
- How to deal with farmers of MSs with already difficult financial situations? Will it not endanger giving notice of statutory diseases?
- Implementation of a new CRSS should be carried out step by step.
- Vaccination in case of statutory diseases could reduce direct and indirect costs immensely; the feasibility depends on consequences for the food chain as a result of trade problems.

Overall it can be concluded that the five participating organisations in the workshop show diverse and complementary views. The *processing and trade industry* is more in favour of the more advanced options for reconsideration of the compensation system for animal diseases, whereas the representatives of farmers and *breeders organisations* are more conservative.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1. Conclusions

The EU contributes financially to the prevention, eradication and control of livestock epidemics in each MS. In this report the results of the investigation regarding the different options for replacing the current EU rules for co-financing of emergency measures are described. Five different policy options are evaluated and the economic impact, likelihood, timescale, magnitude of direct and consequential/indirect costs and monetization of impacts are assessed. Special emphasis is given on the feasibility of an EU harmonized framework for a Cost and Responsibility Sharing Schemes (CRSS).

Existing systems and mechanisms compensating animal disease losses

EU co-financing is foreseen in the event of an epidemic livestock disease. The actual reimbursements from the Emergency Fund according to the current eligibility criteria in place in the period 1997- 2010 were 1,109 million€, of which 88% was related to the major livestock diseases CSF, FMD and AI. Moreover, analysis revealed that high risk areas were responsible for the majority of the EU contributions in the current system.

Financing schemes related to the non-EU compensated part of animals that are compulsory culled and other costs related to the control and eradication costs differ between MS's. While some MS's finance the direct losses from the national budget, other MS's have set up some form of statutory public-private financing system. These public-private financing schemes have a compulsory fund structure in which all farmers pay a levy (i.e. Belgium, Germany, Lithuania and The Netherlands). The amount that is payable by the farmer depends mainly on whether or not there were major outbreaks in previous years. To share the risks between the national government and the sector proportional as well as non-proportional schemes exist.

In some MS's, a compensation scheme for consequential losses is implemented, either by means of private funding (e.g., a compulsory scheme in Romania), by means of public funding (Austria, Cyprus, Czech, Finland, France, Portugal, Sweden) or by a private-public scheme (Denmark, Latvia, Lithuania). A widely adopted EU private insurance scheme covering all epidemic diseases for all types of livestock is absent. Only a few private insurance schemes exist on the European market to cover the risk of consequential losses from livestock epidemics (e.g. Germany).

CVO's opinion on the different policy options

CVO's in all MS's agreed that it is vital that during an outbreak of a disease adequate compensation should be ensured. There was consensus to develop an EU harmonized framework for CRSS (Option 3). There was less agreement amongst the CVO's in the required financial arrangement; one group of CVO's suggested a substantial participation of farmers while others suggested a pure public funding structure. The opinions to include or exclude consequential losses differ between the CVO's. Arguments in favour of including at least part of the consequential losses stipulate that during an outbreak farmers might suffer substantial costs due to a standstill period; especially in Densely Populated Livestock Areas farmers might face severe animal welfare and technical problems in case of long-lasting epidemics. Arguments contra mostly include that the consequential losses are difficult to calculate and a substantial administrative burden is expected, and with respect to market loss the losses will be become too costly.

PEST-analysis different policy options

The PEST-analysis of current CRSS (Option 1) revealed that there is on all criteria room for improvement, hence considering a new CRSS is sensible. Option 3a (mandatory gradual introduction of harmonised scheme) offers on all included criteria the prospect of improvement, both compared to the default Option 1 and to all other alternatives. Moreover, there are no indications that future developments would dramatically endanger the performance or robustness of this option. Option 2 (public-private system) and Option 5 (fully harmonised) could also be considered; they as well offer improvement although with less support from all stakeholders involved. Option 3b (voluntary harmonisation) and Option 4 (deregulation) either do not offer the prospect of major improvements compared to the current CRSS, or have even the risk of decreased performance.

Impact assessment proposed EU harmonized framework for a CRSS

Although a compulsory gradual introduction of the CRSS by all MS's respecting harmonised criteria set by the EU appears to be sound and preferred by MS's (Option 3a), there are numerous modalities of such system possible. The merit of the modalities should be that stakeholders are encouraged to implement more preventive systems and more effective eradication strategies. Investigated modalities of the CRSS in the envisaged system focus on:

1) a bonus element;

2) a malus element;

3) a reduction in reimbursement for large claims;

4) a public-private-partnership (PPP) system.

A historical analysis was performed to determine what would have been the budgetary consequences for the EU if the proposed CRSS would have been implemented with the aforementioned modalities. The historical analysis revealed that the total costs for the veterinary fund of the EU would be substantially lower in the prospective situation compared to the present situation. The main reason for estimated differences is that MS's with large outbreaks would receive a smaller reimbursement compared to the current situation. Moreover, in the new situation FMD is indemnified at the same level as other epidemics (default reimbursement of 50% instead of 60%).

The impact of the implementation of a CRSS was also analysed by means of a normative modelling approach and the impact of the CRSS modalities are analysed jointly as well as separately. All MS's will be rewarded with a higher reimbursement class if only the bonus element is taken into consideration. This system will be more advantageous for those MS's with infrequent outbreaks and thus less claims from the Veterinary Fund. If only the malus element is taken into consideration all MS's will be penalised, only to which extend depends on their exposure. MS's with relative many or substantial claims from the Veterinary Fund will end up in the lowest reimbursement class. A reduction for on-going large outbreaks will also reduce the total costs for the Veterinary Fund. MS's with large claims will be reimbursed more often at lower levels.

Note that to what extend each of the CRSS options would help to achieve the objectives pursued by the initiative is not the object of this study. The costs in the prospective situation will be overestimated since the effects of potential additional preventive measures due to the CRSS are not quantified in the current historical and normative analysis.

9.2. Recommendations

In the envisaged CRSS the deficiencies of the current system should be avoided, or at least reduced. This holds particularly for issues such as limited incentives for prevention, distortions in favour of high risk areas, partial compensation in case of an outbreak (only direct losses), and complex community co-financing rules and the budget risk for the community.

Based on the findings in this report four **recommendations** are formulated**.**

Recommendation 1: Harmonising EU reimbursement rate. Council Decision 2009/470/EC allows for co-financing 50% of the costs of compulsory and pre-emptive slaughter and related operational expenditure; however, for FMD a co-financing of 60% is allowed. Harmonising the EU co-financing to one default level will ensure a more consistent and coherent compensation scheme.

Recommendation 2: Risk based EU compensation. A more comprehensive step is to reward and/or penalize the preventive measures taken by the MS's by deviating from the default reimbursement rate. Such approach has usually a positive effect on claim statistics, as it stimulates to be more eager in preventing outbreaks that would lead to the loss of bonus.

The BM system rewards MS's with low risk profiles by the fact that the percentage of the direct costs reimbursed is higher since the occurrence of outbreaks is less frequent. Also the difference in the drop in reimbursement class depending on the size of the outbreak differentiates between MS's that have small outbreaks compared to MS's that have to cope with more substantial outbreaks.

The CRSS program is relative easy to implement because of its simplicity. Moreover, it is also straight forward to monitor the class status of each MS by the EU. We suggest starting at the present percentage covered by the EU (50% compensation): MS's with a low incidence of disease outbreaks will gradually move up and the MS's with a higher incidence will move down.

If in case of a small outbreak there will not be a reduction in reimbursement class, there will be an incentive for MS's to timely report an outbreak. In order to obtain support by MS's for this revision the range of the reimbursement rates should be limited (approximately 10% points). More extreme values will decrease the demands on the Veterinary fund on the long run (affecting the potential additional preventive measures taken) but will lack a wide-range support in all MS's.

In summary, it is recommended that EU compensation to the MS for epidemic livestock diseases should become more risk based. This could be envisaged by introducing one or more incentive based modalities (i.e, bonus and malus elements, and/or reduction in reimbursement rate for large claims).

Recommendation 3: Share of responsibility and costs between public and private sector. First, a credible arrangement for sharing responsibility between government and relevant stakeholders has to be established before decisions on cost sharing can be properly debated and defined. Sharing responsibility should be targeted such that the total risk is reduced by increasing the biosecurity and minimizing the effect of a possible outbreak. The envisaged PPP is a tool to provide incentives for farmers and thus stimulates behavioural changes for risk factors involved. The PPP should impose standards towards for example the maximum number of animal contacts with other farms, farm hygiene practices, the proper usage of hygiene barriers in place, reservation of e.g. 5% free places to cover temporary animal surpluses, and implementation of quality assurance schemes.

Second, the PPP should manage a fund structure in which all farmers pay a levy to the compensation scheme. The PPP can stimulate their stakeholders to implement preventive measures by premium differentiation to the fund and through the possibilities for MS to subsidize the implementation of preventive measures. Determining an appropriate base for cost sharing is a complex matter and it is unlikely that there will be a "one size fits all" solution but there is a need for a systematic approach. Therefore PPP's are best organized in the different MS to be able to adequately implement national and regional differences but based on a EU set of basic principles and requirements.

Costs and benefits of running the national PPP differ between MS's. In MS's with infrequent and marginal risks of large disease outbreaks, the transactions costs of implementing and maintaining a complex levy system may be disproportionate to the possible benefits. Therefore a compulsory PPP for all MS's will only be supported if the level of complexity of the PPP is risk based. MS with marginal risks would only be required to implement a PPP in which responsibility would be shared enforcing a kind of quality system and an ex post levy to cover the non-EU funded part of the costs in the unlikely event of an outbreak. If a mandatory PPP is not supported at EU level, a voluntary system should be accompanied by mechanisms to incentivise it.

The PPP will take a relative long time before full establishment and thus a transition period must be foreseen to adapt to this new situation, especially for a MS in which at present the direct costs are fully borne by the government (10-15 years is the minimum period that should be considered); temporary support from EU might be needed (for example to finance initial costs).

Recommendation 4: MS's flexibility in expanding coverage by including part of the consequential/indirect losses. The substantial benefits of introducing coverage of these losses adjacent to the CRSS are as follows:

- The uptake of a PPP by farmers could be improved by connecting the PPP with a coverage of (part of) the consequential/indirect losses (this coverage is outside the review of Decision 2009/470/EC for the CRSS, typically should be voluntary and could be a mutual or a commercial insurance). It seems appropriate to include this compensation for farms where all animals were culled as well as farms within surveillance and movement restriction zones.
- It would facilitate the implementation of preventive measures since it opens the possibility of premium differentiation based on the implementation of such measures.

Coverage of the consequential/indirect losses is not a part of the proposed CRSS. However, possibilities to cover (part of) these costs can facilitate the introduction of a CRSS, especially those costs that are due to business interruption of farms in which animals are culled or farms in a surveillance or movement restriction zone. Hence, only farms located in the movement restriction zones should be eligible for compensation of (part of these) consequential/indirect losses. Premiums in such schemes paid by farmers should be risk dependent. Support by MS or EU by subsidizing the premiums paid to this mutual could increase the participation of farmers to this fund.

A major drawback to correctly determine the consequential/indirect losses is the fact that they are difficult to calculate and most of the time only can be estimated after the outbreak ended. A solution for this might be that beforehand a fixed sum per production unit (e.g. dairy cow, sow or pig place) per day is set by the farmer and the mutual or commercial insurance fund. We suggest to make arrangements for farms culled that are confronted with loss of income during the time the farm is not fully repopulated and in production and confronted with additional start-up costs. Also arrangements could be made for farms in a Surveillance or Movement restriction zone during the stand still period confronted with consequential/indirect losses, mainly due to the fact that they are not able to freely move animals or livestock products. It seems neither favourable nor feasible to compensate for losses due to trade restrictions. The reasons for this are that these costs cannot be determined explicitly and the whole sector in a MS is confronted with these losses at the same time, i.e. also farms outside the zones with movement restrictions. Insurance would mean that farmers in effect would pay for their own losses. Although in major market-disruptive outbreaks, farmers outside areas with movement restrictions might benefit from temporally higher prices.

There is currently an on-going investigation as to whether art. 68 of Council Regulation 73/2009 (establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers) can be used to allow premium subsidy of farmers by MS. Note that in the current situation MS's may provide financial compensation to farmers for economic losses caused by the outbreak of animal diseases by way of financial contributions to mutual funds (Article 70, EU, COM(2008) 306).

9.3. Literature and Footnotes

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Footnotes

1 OJ L 155, 18.6.2009, p 30-45.

2 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2006:319:0001:0033:EN:PDF

3 http://ec.europa.eu/food/animal/diseases/strategy/cahpeval_en.htm

4 http://ec.europa.eu/food/animal/diseases/strategy/archives/main_report_part2_en.pdf

5 The complete study can be found in:
http://ec.europa.eu/food/animal/diseases/strategy/final_report_en.htm Court of Auditors SPECIAL REPORT No 1/2000 on classical swine fever, Court of Auditors, SPECIAL

6 REPORT No. 8/2004 on FMD. In the Report on FMD the court listed as factors contributing to a risk for the Community budget that Community legislation does not include incentives to encourage farmers to participate actively in prevention and control and farmers do not make a direct contribution to the Community funding for prevention and control arrangements. It also criticised the funding system, that has, however, been revised with Regulation 349/2005. http://register.consilium.europa.eu/pdf/en/08/st09/st09536-ad02.en08.pdf

7 These 3 diseases are chosen because: 1) impact and involvement of the Veterinary fund has mainly related to these diseases, and recent models are available.

APPENDIX 1: QUESTIONNAIRES SENT TO THE CVO OF THE MS INCLUDING LETTER OF RECOMMENDATION BY DG SANCO

Ref. Ares(2010)394638 - 05/07/2010

EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR HEALTH AND CONSUMERS

Directorate D - Animal health and welfare
Unit D1-Animal Health and Standing Committees

Brussels,
DI MCG (2010)D/432537

To: CVOs (animal health) of Finland, Romania, The Netherlands, UK, Italy, France, Germany, Poland, Belgium and Hungary

Dear Madam/Sir,

I would like to inform you that in accordance with the Communication from the Commission on a New Animal Health Strategy for the EU and in the Action Plan of the new Animal Health Strategy, DG SANCO has launched a "Feasibility study on the revision of Council Decision 2009/470/EC (ex 90/424/EC) on expenditure in the veterinary field with a view to develop a harmonised EU framework for cost and responsibility sharing schemes for animal diseases".

The main purpose of the study is to assess the feasibility of the options identified for the revision of Council Decision 2009/470/EC, including the possibility of developing an EU harmonized framework for CRSS.

The study will be performed by an external contractor, IBF International Consulting, selected through the SANCO Framework Contract (2009-2013). In the framework of the study, an interview with the competent authorities in a selection of Member States will be performed by the contractor. In this context, I would like to inform you that you will be contacted by the contractor soon for the appropriate practical arrangements.

I thank you in advance for your cooperation.

Yours sincerely,

Alberto Lacidomada
Head of Unit

cc: L. Terzi, B. Van Goethem, E. Pondelet, K. Van Dyck, J. Ordoig-Vila, M. Muntezi, C. Bertrand, J. Moynagh, M. Scannell, L. Vandenberghe, A-E. Fuessel, F. Reviriego-Gordejo

Commission européenne, B-1049 Bruxelles / Europese Commissie, B-1049 Brussel - België
Office: Rue Froissart 101 2/56. Téléphone: direct line (32-2) 298.10.70, switchboard (32-2) 299.11.11. Fax: (32-2) 296.31.46.
Internet: http://www.ec.europa.eu/dgs/health_consumer/index_en.htm

Questionnaire

Development of a harmonised EU framework for cost and responsibility sharing schemes (CRSS) for animal diseases

Background information on the project

The purpose of this research is to **assess the feasibility and the possible social, economic and environmental impacts of the options** that have already been identified for the review of the EU rules for co-financing emergency measures taken by the Member States to control and eradicate animal disease outbreaks. For this **five different options** are suggested. A general assessment on the advantages and disadvantages of these options shall be made. **For options 3.a and 3.b an in-depth feasibility assessment shall be made (see below).**

In this project we evaluate different options for a CRSS. The identified **options** are:

- Option 1: "No change scenario", which preserves the existing legal framework for animal disease direct-losses compensation.
- Option 2: EU co-financing rules are maintained, however a maximum percentage for public financial contribution to the farmers is defined, thereby ensuring that they bear a minimum percentage of the direct costs (which could be insurable).
- Option 3: Development of an EU harmonized framework for CRSS
  - Option 3.a: establishing an obligation for a gradual introduction of CRSS by all Member States respecting certain harmonized criteria established at EU level.
  - Option 3.b: establishing the possibility for individual MS to develop CRSS provided that these schemes comply with EU harmonized criteria while allowing others to maintain the option of getting EU co-financing according to the current rules.
- Option 4: Deregulation.
  - Option 4.a: to limit EU intervention to cases of catastrophic events;
  - Option 4.b: to grant lump sum payments to the MS instead of co-financing.
- Option 5: Establishment of a fully harmonised EU CRSS system managed by the Commission for compensating losses due to animal diseases.

For option 3a and option 3b harmonised criteria at the EU level should be at least:

- obligation of Member States to cover certain animal diseases considered as priorities at EU level by the CRSS with compulsory participation of livestock producers;

- objective of the CRSS, i.e. providing efficient transfer of animal health risk from farmers to a CRSS and inducing efficient on-farm risk management through differentiation of contributions and conditions of coverage;
- basic principles for efficient schemes like conditions for incentive compatibility, covered risks and public financial support;
- maximum threshold for public funding;
- WTO compliance.

EU financial contribution to the CRSS developed in the MS (option 3a and 3b) could be:

- Peace-time support.
- Co-financing of losses excluding business interruption costs (direct losses)

Co-financing of **direct losses** could follow the lines of the current system of financial compensation. This public financial support could have the following three main pillars:

- Support to prevention and surveillance programmes, e.g. on basis of the livestock numbers covered by a CRSS.
- Support to the losses due to animals slaughtered as fixed percentage of the compensation paid to the operator.
- Previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC. This would be in contrast to the current situation where other direct costs are co-financed on basis of the real expenses incurred, which may lead to inflated costs and complicated procedures. The flat rates would have to be defined at EU level in advance and could be related to the numbers of animals/operators affected etc. Definition of flat rates should take into account appropriate price indices to reflect reasonable differences between Member States.

In addition to this option, co-financing **consequential/indirect losses** including business interruption costs is assessed, on whether it is possible/adequate or not, and if it is, how can this be done.

If appropriate other ways of providing EU financial aid are proposed.

Principal animal diseases covered by the CRSS

In this project the focus is on FMD, CSF and HPAI.
Obviously, livestock epidemics like FMD, CSF an HPAI can have large economic consequences for farmers but also other various parties of the production chain in terms of **direct** and **consequential losses**:

- Direct losses comprise the value of the animals culled under depopulation and welfare control measures and the costs of organisational aspects such as the monitoring of farms in restriction zones.
- Consequential losses that arise at farm level can comprise one or more of the following categories:

Business interruption: business interruption occurs because farm buildings become (partly) empty due to stamping-out and welfare slaughter or breeding prohibition, and stay empty until restriction zones are lifted.

Losses related to established restriction zones: farms in restriction zones face (long) periods in which animals (e.g., finishing pigs and veal calves) and manure cannot be transported from the farm. These periods are characterised by animal welfare problems, extra feeding costs, and emergency measures for housing of pigs and storage of manure. Such losses will widely vary across farms and are therefore complicated to measure. Milk from dairy farms in restriction zones might be collected taking into consideration strict hygienic measures.

Additional repopulation costs: these losses include extra costs of animal health problems.

Losses from emergency vaccination: given a situation, in which vaccinated animals are destroyed, losses might arise of the above categories (business interruption, repopulation costs). However, for reasons of social acceptability, the rendering of vaccinated animals is under debate. With future epidemics, meat and milk from vaccinated animals may be destined to the local market, which likely leads to extra costs and/or lower prices. Something similar may be applied to animals under welfare slaughter programs.

Price effects: livestock epidemics can have a rather severe impact on prices, especially meat prices. The impact depends on aspects such as the size of the epidemic (duration, size of restricted area), reactions of other countries (closure of borders, increased production) and whether vaccination is applied (which generally leads to long periods of export limitations).

The direct losses are partly compensated by governments (national and European). Consequential losses are almost always completely borne by the farmers themselves if not insured privately. In some countries the consequential loss exposure is transferred by means of private insurance schemes. We want to evaluate the Financing scheme covering (part) of direct and consequential losses.

What do we need to know from you?

Our present info on your country is:

"No recent data" (for 15 countries like Lithuania for example) *

I. Can you please update the previous information?

* For data collected for 12 MS like:

Austria: The Bundeslander (similar as in Germany) establish levies for the fund.

Belgium: The government has set up a fund that it is used to finance various animal health and quality improvement measures. All funds are paid to the Administrative Unit for animal quality and health (part of the Ministry). The levy can vary depending on the level set by the government. The levy is differentiated on basis of species and farm size. With respect to pig production in addition the premium is differentiated between open or closed pig production.

Denmark: The government pays only for the value of the animals which are compulsorily slaughtered. If a whole herd is slaughtered, a further 20% is paid to cover the loss of income from the herd. However the government does not pay for the commercial impact of movement restrictions or other controls. No statutory or voluntary levies are operated to establish an emergency fund.

Finland: The government compensates farmers and no statutory or voluntary levies are operated to establish an emergency fund.

Germany: The German program is set up by national legislation but each Bundesland is responsible for running the program and draws up the detailed rules of the application. The scheme is compulsory. The program is run by an administrative council that decides the level of the levy etc. The administrative council is made up of farmer and ministry representatives. The levy varies between species but more importantly is varied according to the needs of the fund. The compensation payments are made from the available funds and the Ministry of Agriculture will pay for the costs if the fund runs out of money. The input of the Ministry will however be repaid over the following years and this is usually why the levy increases after a disease outbreak. The levy is only used to co-finance the Community Veterinary measures following a disease outbreak. It therefore only pays for the slaughter of animals that have to be killed under EU Veterinary measures. The Lander and the levy fund each pay half of the remaining 50%. No compensation is paid to farmers in the surveillance zones.

Greece: The government operates a compulsory agricultural insurance scheme via the Greek Agricultural Insurance Organisation "ELGA". ELGA has the objective of organising and implementing programmes of proactive protection and insuring the production and assets of agricultural enterprises. More specifically, insur-

ance with ELGA includes compulsory insurance against damage which is caused to for example animal assets of farmers. Persons who own stock-breeding or poultry or domestically produced products and by-products of animal origin shall be subject to insurance. ELGA is funded by an 'income from special insurance contributions' (of which the fee is 0.5% of the value of the sold livestock production) and this constitutes the major financial source.

Italy: No government compensation is available other than for slaughtered animals. No statutory or voluntary levies exist.

Luxembourg: The Luxembourg government pays compensation when animals are compulsorily slaughtered. There have been negotiations to introduce scheme that would have been paid for by farmers, government and farmers' associations in equal shares. However, the scheme was never implemented.

The Netherlands: Following the epidemic of CSF in 1997, the Dutch government has decided that the producers must pay a larger proportion of the costs of any future epidemic and a system has now been put in place whereby pig producers will have cover for up to 227 million Euros per five years (the same holds for the cattle sector). The producers and the Ministry of Agriculture have agreed on a system where a bank guarantee is supplied and producers will have to pay the levy mainly after the epidemic. The amount of the levy will depend on the actual cost of the epidemic.

Spain: No government compensation is available other than for slaughtered animals. No statutory or voluntary levies exist.

Sweden: If a 'production unit' is closed during an epidemic of a notifiable disease the government can compensate the farmer for the destruction of the animals, animal value, and decontamination and for production losses. Compensation for notifiable diseases like Paratuberculosis is 100% for both animal value and decontamination costs. Compensation for Salmonella varies from 0% to 70% depending on the size of the livestock unit and whether the farmer is taking part in a control program. Veterinary costs and other costs caused by the epidemic is not compensated.

United Kingdom: For FMD in cattle, sheep and pigs the government compensates destructed animals at 100% of the market value. There is no levy of farmers. The same applies for CSF and Swine vesicular disease (SVD) in pigs. The UK government also pays some compensation for animals slaughtered due to Bovine Tuberculosis, Brucellosis and BSE in cattle. As far as poultry diseases are concerned, such as Avian influenza and Newcastle disease, the government only pays compensation for birds slaughtered which are non-diseased (at 100% of their market value). For Aujeszky's disease in pigs the government will also pay 100% of the animal's market value. The only difference with Aujeszky's is that when the disease was in the country a levy was paid on all pigs at slaughter to cover the compensation costs. This levy is no longer collected but the legislation is in place to collect it again should the disease come in to the country again.

II. In addition, if not yet mentioned, basically we want to know:

1. What are the current animal diseases compensation schemes in your country for compensation of direct losses:

Are they:

- private,
- public-private or
- public
- is it a levy (compulsory) scheme or is it an /insurance (voluntary) scheme?

2. Are there any arrangements made concerning compensation of consequential losses:

Are they:

- private,
- public-private or
- public;
- is it a levy (compulsory) scheme or is it an /insurance (voluntary) scheme?

3. What are recent developments in agricultural insurance schemes regarding animal diseases in your country?

What is:

- - % of farmers participating
- - Type of coverage: (direct or consequential losses)
- - Reason for (non) participating?

4. What is your opinion on spending public money in preventing and controlling contagious animal disease? Please motivate?

III. Additional questions on the alternative options for a CRSS

Please score your answer to the following questions concerning the different CRSS policy options:

- - = (strongly) no /(strongly) disagree,
- +/- = neutral, medium,
- + = (strongly) yes / (strongly) agree)

After each line with question you are elaborate on the issue.

Please give your comments / opinion regarding the following open questions concerning option 3A and 3B:

9. What criteria regarding CRSS conforming to option 3a and 3b should at least be harmonised at an EU-level? For instance:

a. Categories of covered animal diseases/disease types?

b. Participation of livestock farmers: compulsory or voluntary?

c. The objective of the CRSSs:

i. efficient risk transfer from farmers to CRSS?

ii. Support of on-farm risk management?

iii. Differentiation in financial contributions between cost sharing actors?

iv. Risks and losses (direct/consequential) that can be covered by the CRSS?

d. maximum threshold for public funding?

e. WTO compliance?

f. ….?

10. Should the EU financial contribution to CRSSs in Member States concern peace-time support or co-financing of losses in times of crisis? What is your motivation?

11. If EU financing support should be co-financing of losses, which losses should be compensated for?:

a. only direct losses?

b. also consequential losses like business interruptions?

12. If direct losses will be financial compensated by the EU, what ways of support would you prefer and why? For instance:

a. Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS?

b. Compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator?

c. Previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC (instead of the current compensation of real expenses)? How to establish these rates?

d. Other ways of EU support?

13. Regarding EU compensation of indirect losses:

a. Is it feasible to do this? Are these losses determinable and measurable?

b. How to guarantee losses are accidental and unintentional? How to prevent moral hazards?

c. Can the frequency and probability of indirect losses be calculated?

d. What arguments in favour of it / what are arguments against compensating indirect losses?

e. How could it be implemented?

14. Are there other ways of providing EU financial aid then in the options already mentioned?

15. Do you have final remarks?

APPENDIX 2: RESPONSE OF THE MS ON EXISTING SYSTEMS AND COMPENSATING MECHANISMS IN THE EU MS

1. Austria

STATUTORY DISEASES

Compensation schemes for direct losses

Public scheme. The legal basis for compensation due to disease *eradication* is the Austrian Animal Disease Act (ADA). The Federal Government has to pay compensation (100 %) if:

- Equids, ruminants, pigs and poultry are to be killed due to official instruction;
- Objects are destroyed after official instructed disinfection.

Compensation schemes for consequential losses

The Federal Government also has to pay compensation (100%) if a person lacks income due to ban of the farm in case of FMD or HPAI.

Some (not all) Federal Provinces **may** give additional money to the farmers (Tierseuchenkassa).

OTHER DISEASES

Compensation schemes for direct losses

The legal basis for compensation due to official instructed *slaughter* is the Austrian Animal Health Act. The Federal Government has to pay compensation (75 % minus slaughter revenues) if:

- Equids, ruminants, pigs or poultry are to be slaughtered due to official instruction (i.e. in the frame of eradication programs – ParaTBC, BVD, Salmonella,…);

Compensation schemes for consequential losses

Some (not all) Federal Provinces **may** give additional money to the farmers (Tierseuchenkassa).

Recent developments in agricultural insurance schemes for animal diseases

There is one compulsory insurance system (based on levies) in laying hens (Salmonella-program).

2. Belgium

STATUTORY DISEASES

Compensation schemes for direct losses

The current animal disease compensation scheme for direct losses is based on a compulsory levy scheme. The levies are paid directly to the Sanitary Fund. The origin of these financial resources is private; the use of this budget is public. (The percentage of the public financial contribution to the farmers is 0%, because the origin of the fund is 100% private. This means that the cost sharing of the farmers is 100 %.)

The government has set the Sanitary Fund to finance various animal health and quality improvement measures. All funds are paid by the operators to the Administrative Unit for animal quality and health (part of the federal Ministry). The levy can vary depending on the level set by the government. The levy is differentiated on basis of species, farm size and other sanitary risk factors. With respect to pig production, in addition the premium is differentiated between open or closed pig production.

This system is operational for the main sectors: cattle sector, pig sector, small ruminants (sheep, goat, cervidae), poultry sector and dairy sector. For other (minor) species there is at present no such system (equidae, aquaculture, rabbits, bees, ..) for reason of an unfavourable cost/benefit ratio.

100 % of the professional farmers participate (clarification: small farm units considered as hobby farmers are not participating e.g. poultry sector: less than 200 poultry is considered as a hobby flock).

The compensation level of the current Belgian system differs according to the disease

Epizootic diseases: FMD, CSF: 100% (with restrictions for healthy (100%), clinically illness (50%) or dead animals 0%)); except for AI : 90 %

Compensation schemes for consequential losses

There are no arrangements to compensate consequential losses. In some cases, consequential losses can be paid by the regional authorities and only if there is an EU regulated framework. Compensation of consequential losses is a competence of the regional authorities (i.e. Flanders, Wallonia and Brussels).

OTHER DISEASES

Compensation schemes for direct losses

Enzootic diseases : Tuberculosis, brucellosis , leucosis 80-85 % ; Special cases with important public health risk : TSE, Rabies : 100% Poultry diseases: 70 % (Newcastle disease and Salmonella).

Compensation schemes for consequential losses

(not present)

Recent developments in agricultural insurance schemes for animal diseases

If insurance schemes mean 'private insurance', then to the knowledge of the respondents such schemes are not existing / no information available.

Description of the Veterinary Fund in Belgium

Mechanisms of the national Sanitary Fund for animals

Base of the animal health control

The Animal health law for the control of animal diseases was published in 1987. This law has been modified since then several times but still forms the legal base for the control of animal diseases in Belgium.

The objective of this law is to control animal diseases in order to promote public health and to maintain/improve the prosperity of the farmers.

The list of diseases falling under the scoop of the animal health law is determined by Royal decree[6] . For a disease occurring on this list a Royal decree **can** be taken containing all the elements of disease control for that specific disease (*).

(*) These Royal decrees take also into account the dispositions of the European legislation concerning diseases (e.g. EC directives AI, FMD).

[6] Royal decree of 25th of April 1988, chapter III or notifiable diseases being diseases that are officially controlled

Remark:

According to the animal health law, when one of the diseases of the OIE[7] list present a sudden and unexpected increase in morbidity or mortality or because of its zoonotic impact, the Minister is authorised to take any control measure (by Ministerial decree) in cases of serious danger of contamination and to eradicate the contamination. (E.g. for emerging and re-emerging diseases, sudden outbreak of zoonosis…)

Sanitary Fund (creation and functioning of the budgetary Fund)

The first steps to create a Sanitary Fund (budgetary Fund) were made in 1986, with a legal base in the above mentioned animal health law of 1987. A further consolidation of the legal base was drawn in the law of 1998[8]. The latter law forms nowadays the legal base for the sanitary Fund. **It can finance the**:

- Compensation of farmers (owners) for their animals that have been culled, slaughtered or destroyed by order (*)
- Compensation for the destruction (by order) of animal products and materials suspect of contamination (disease)
- Compensation in case of destruction of contaminated products (e.g. PCB's Dioxins…). (These compensations are re-claimable advances.)
- Purchase of vaccines
- Intervention fees to certified veterinarians for epidemiological surveillance programs:
  - Administrations costs vaccines (Bluetongue, salmonella)
  - Tuberculinations
  - Taking of blood samples for officially controlled diseases (Brucellosis, Leucosis…)

[7] Chapter 2.1.1.3 of the Terrestrial Animal Health Code or Chapter 1.1.3 of the Aquatic Animals Health Code
[8] Law of the 23rd of March 1998 regarding the creation of the sanitary fund for the health and quality of animals and animals products

- Visits on the pig holdings for Aujeszky (Aujeszky control program)

- Accompanying measures in the form of programs that are approved by the minister.

(*)For certain diseases a « refaction coefficient R » is applied. This is a rebate depending on the disease:

e.g.:

- Newcastle disease this R= 70 % (poultry holders must vaccinate)
- Avian influenza R=90% (vaccination not allowed, decision of the Council of Ministers of the 25/04/2003)
- Other: R=100%

These coefficients have been established for a number of diseases with the intention to let the farmers take their part of the responsibility.

For highly contagious diseases or with a high zoonotic potential a rebate factor is not desirable or advisable.

The resources of the Sanitary Fund come from:

- yearly mandatory contributions of livestock owners,
- voluntary contributions or contractual contributions (contractual contributions are, for example used in the poultry sector for covering (a part of) vaccinations costs, the level of these are negotiated with the poultry sector)
- EC participation (co-financing) in the expenditures of the Sanitary fund:

  e.g.: (not exhaustive list)
  - Salmonella vaccines costs are at the expense of the Sanitary Fund, as part of a Salmonella control program yearly approved by the EC (co financing of 50% in vaccines costs and expenses for the compensation of owners of poultry that has been slaughtered to order.)
  - Other programs like Bluetongue control program (vaccines costs are at the expenses of the EC, the administration costs at 50% with a threshold)

Stakeholders' contributions

The contributions are based on the livestock sanitary risks, estimated and reviewed, by the Ministry. The principal factors for fixing the contributions are:

Sector	Contributions according to	Legislation (Royal decree)
Cattle	the number of animals held in a cattle herd during the reference period of one year	2004
Pig	the capacity of the farm (number of pork places) and type of farming system (closed or open system) Closed: piglets originating from own holding. Open: Fattening piglets coming from more than one other holding)	**1999**
Dairy cows	the amount of milk produced	**2005**
Poultry	the type of poultry keeping (breeding, laying, broilers…) and the capacity	**1997**
Small ruminants	**to the number of ewes older than 6 months kept during a reference period**	**2007**

The level of the contributions can be subject to variations. The level of the mandatory contributions depends amongst other on:

- Reserves of the budgetary Fund, for the cattle, pig and dairy fund a strategic reserve must be maintained. The levels of these reserves were set by the government in December 1996.
- Expenditures and revenues of the budgetary fund are not constant over time. (Variable co financing of the EC, start of new programs, compensation sudden outbreaks of officially controlled diseases…)

In relation to these elements, the mandatory contributions can be adapted if necessary, e.g.:

- The contributions in the cattle and pig sector haven been lowered, to a level of 20 % in 2009 and 60 % in 2010 (compared to the 100% level in 2008) to give headroom to the sector heavily touched by the economic crisis of 2009 -2010.
- After the Avian influenza outbreak in 2003, the contributions in the poultry sector have been doubled for 5 consecutive years (2003 – 2007) to refund the reserve. (Paid compensation of 10,5 millions euro to the poultry holders).

Objective of the Sanitary Fund

The budgetary fund for the health and quality of animals and animal products was created by the Law of 23 March 1998, according to three basic principles namely:

1) co-financing,
2) co-responsibility and
3) co-management by the producers.

Organization of the sanitary fund

The Fund is falling under the competence of the Minister of Public Health.

The three principles are realized by the creation of an Advisory Board (Council of the fund) and 5 working groups within the Sanitary Fund. The council is composed of representatives of the public services, the different producers associations, representatives of other authorities (Federal Agency for the Safety of the Food Chain) and DGZ and ARSIA (disease control associations). The Board is a platform where financial aspects e.g. the level of the contributions, opportunity of disease control programs, the financial part of programs, but also important decisions about the future animal health policy are discussed.

The council is an advisory organ; its recommendations are submitted to the Minister for final approval.

Within the Sanitary Fund we find 5 subsidiary funds (Cattle fund, Pig fund, Poultry fund, Dairy fund, Small ruminants Fund). Each subsidiary fund has its own working group with representatives of the sector and the authorities.

In these working groups all kind of aspects related to the sector can be discussed. E.g. proposals for the implementation of new disease control program, evaluation of the reserves of each fund, evaluation of the result of the implementation of control programs, value grid of animals…….The advices given by the working group are submitted to the Council of the Fund.

In peace time, expenditures are spend for general expenditures (Personnel expenditures, expert fees, management expenditures for animal fund, management expenditures for services to third parties, external audit, reimbursement of mandatory contributions) but a great part is destined for prevention (e.g. programs like the Bluetongue vaccination).

In times of a major crisis (e.g. HPAI 2003, CSF), then an important part is used for the swift and adequate compensation of the value of culled animals according to the scale of the crisis.

Important remark:

The Sanitary Fund does not cover indirect cost. Necessity slaughtering and other expenditures linked with the eradication (carcass destructions) are financed by the Ministry.

3. Bulgaria

STATUTORY DISEASES

Compensation schemes for direct losses

Terms and procedures for recouping livestock breeders are to comply with provisions of Chapter VI, Section II of the national Law on Veterinary Activities. These include information about:

- evaluation of animals subject to culling, including the responsibilities and staffing of the commission to do evaluation;
- financial compensation (recouping) for the animals destroyed;
- operational costs;
- required documents to prove the costs incurred, etc.

The national veterinary service (NVS) annual budget does not contain any funds foreseen for eradication of and compensation for epizootic outbreaks that might occur. If such would happen, funds would be reallocated from the backup budget of the Ministry of Agriculture and Food or the central government budget under a special decision of the Council of Ministers (CoM). This is to lay down the terms and procedures applicable to effecting expenditures and reimbursing them as target one in the central government budget for the purposes related to coping with epizootic risks. Costs may be spent for compensating owners or compulsory culled animals or fallen stock due to any of the diseases referred to in the Order issued by the Minister of Agriculture and Food according to Art. 47(1) of LVA or enlisted in the list under Art. 120 of LVA.

Funds of the central government budget and/or the NVS budget are the ones to be used for recouping owners of:

- animals that have died due one of the diseases specified in an Order issued by the Minister of Agriculture and Food in accordance with Art. 47(1) of LVA or included in the List referred to in Art. 120 of LVA;
- animals culled for diagnostic purposes;
- infected or contact animals culled for the purposes of disease eradication;
- animals treated by immunological veterinary medicinal products (VMPs) and:
    - fallen dead due to unpredictable risk;
    - emergency slaughtered before the end of withdrawal period;
- animals that have fallen dead or emergency slaughtered after a ban imposed by NVS;
- germinal products, raw materials or food of animal origin, animal by-products and products derived thereof, feed raw materials, feed additives, compound feed and equipment and tools destroyed for the purposes of disease eradication.

Compensation may *not* be paid to owners of animals, which:

- have not registered respective animal holding;
- have not provided their animals to be identified (ear-tagged);
- have not ensured conditions their animals to be subjected to mandatory measures provided for in the State Prophylactic Programme;
- have not complied with prescriptive acts imposed by veterinary (competent) authorities;
- have not complied with the requirements and measures to ensure bio-security of respective holding and animal breeding therein;
- have violated ban(s) imposed by Orders issued by the Minister of Agriculture and Food or by NVS Director-General;
- have not complied with the requirements for proper feeding of animals kept in respective animal holding.

As an EU Member State, Bulgaria is eligible for financial co-financing provided by relevant community funds to support eradication of disease(s), if only the country have immediately implemented the minimum required measures foreseen in relevant EU legislation starting from the identification of the very first suspect case and on-going after the official confirmation of the disease.

Compensation schemes for consequential losses

No compensation for consequential losses.

OTHER DISEASES

Compensation schemes for direct losses

(No information received) /not present

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

The schemes exist and are voluntary and only 1% of the farmers participate. Direct loses are covered.

4. Cyprus

STATUTORY DISEASES

Compensation schemes for direct losses

The current animal diseases compensation schemes in Cyprus are public. The farmers receive compensation for direct losses from the government.

Compensation schemes for consequential losses

In case of an emergency situation, arrangements from the side of the government are made to compensate also consequential losses or at least a percentage of them. There is no insurance scheme in place.

OTHER DISEASES

Compensation schemes for direct losses

(No information received/not present)

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

Agricultural insurance schemes in Cyprus exist only for fruit and vegetables. No insurance schemes exist for animal husbandry.

5. Czech Republic

STATUTORY DISEASES

Compensation schemes for direct losses

There is public compensation for selected diseases (according to the national legislation), with a full compensation for direct losses and consequential losses. The compensation shall be provided in an extent of substantiated costs efficiently expended and the losses incurred.

Livestock producers do not participate in the compensation system (full public compensation).

Compensation schemes for consequential losses

Full public compensation of consequential losses. A special regulation is established for the payment of employees, who are out of work because of farm standstills due to diseases. They are getting compensation for loss of income (Wilkens, 2010).

OTHER DISEASES

Compensation schemes for direct losses

(No information received/not present)

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

There are private insurance schemes on voluntary basis. There is a possibility to levy up to 50 % of contribution from budget. The type of coverage (direct or consequential losses) depends on the arrangement of a concrete contract.

6. Denmark

STATUTORY DISEASES

Compensation schemes for direct losses

The compensation scheme is fully public. The government pays only for the value of the animals which are compulsorily slaughtered. If a whole herd is slaughtered, a further 20% is paid to cover the loss of income from the herd. No statutory or voluntary levies are operated to establish an emergency fund. In addition, the Danish government pays for the destruction of the culled animals, animal products, feed and other material that have to be destroyed in connection with the decontamination of the affected premises. Also, all costs associated with both the preliminary and the final cleansing and disinfection and where screening and tests are necessary in connection with restocking and lifting of zones are paid by the government.

Compensation schemes for consequential losses

The government does not pay for the commercial impact of movement restrictions or other controls. The Danish government covers 20 % of lost income during the period until restrictions are lifted for the affected farm.

For the cattle and swine sector, the industry will, via a compulsory levy scheme, cover the remaining 80 % of lost income. The poultry sector has not made a similar arrangement.

OTHER DISEASES

Compensation schemes for direct losses

(No information received/not present)

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

Within the current arrangement, where the Danish government pays all costs, the farmers have not had any incentives to go for insurance arrangements. Therefore, no farmers have insurance arrangements.

An attempt to establish an insurance scheme was made by the poultry sector in 2002, but a large outbreak of Newcastle disease made the insurance company to withdraw.

The aquaculture sector has established an “all risk” insurance, which covers the direct losses in connection with mortalities caused by diseases or by contamination of the water, e.g. with slurry or escapes especially for net-cage production break e.g. down of the construction. However, there is a own risk of 20 % of the amount insured.

7. Estonia

STATUTORY DISEASES

Compensation schemes for direct losses

Currently, there is direct compensation for all the aspects considered in Council Decision 2009/470/EC. Public services are covering compensations for dangerous contagious animal diseases (former list A)* and Bovine brucellosis, *Brucella melitensis* infection, Bovine tuberculosis, Enzootic Bovine Leucosis, Anthrax, Rabies and TSE.

Compensation schemes for consequential losses

No (No information received/not present)

OTHER DISEASES

Compensation schemes for direct losses

Private compensation schemes: all other diseases. Voluntary insurance scheme can be used by farmers

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

The private insurance companies are not present in the sector. The government is willing for a compulsory participation of the producers at the CRSS, but not pushing to get consequential losses covered.

The percentage of farmers participating is estimated to be low. There is only coverage of direct losses. the difficult economic situation is the reason for (non) participating.

8. Finland

STATUTORY DISEASES

Compensation schemes for direct losses

The government compensates farmers in relation to exotic diseases such as FMD, CSF or HPAI. For these diseases, the compensation scheme is 100% public for direct losses. No statutory or voluntary levies are operated to establish an emergency fund.

Compensation schemes for consequential losses

As regards exotic diseases such as FMD, CSF or HPAI, there is a possibility to compensate for loss of income to farmers caused directly by the measures taken by the authorities to control and eradicate the disease. In practice that means paying compensation if the farm is not allowed to buy or sell animals or products because of government measures. The compensation may be 100% of the losses or less and it comes from public funds. It may be paid to infected farms or to other farms affected by the measures, for example if they are situated in a protection zone. Compensation for consequential losses can also be paid to neighbouring non-infected farms in restricted zones, thus reducing the incentive for irresponsible behaviour in relation to outbreaks of exotic diseases.

OTHER DISEASES

Compensation schemes for direct losses

As regards certain other non-exotic diseases subject to compulsory measures, such as BVD, the compensation for culled animals is 75% and there is no compensation for other costs such as cleaning and disinfection. The government does not compensate farmers for certain non-exotic diseases subject to compulsory measures such as salmonella. In case of salmonella in poultry, pigs or cattle, mandatory restrictions on the sale of live animals are put in place, but the government does not compensate farmers for measures to eradicate the disease. Instead, there is a voluntary insurance scheme for Salmonella.

Compensation schemes for consequential losses

As regards non-exotic diseases, there is no public compensation for indirect losses, but the voluntary insurance scheme for salmonella described below also covers losses caused by the interruption of the production.

Recent developments in agricultural insurance schemes for animal diseases

For eradication of Salmonella, there is a voluntary private insurance-based scheme which covers losses of culled animals and cleaning and disinfection, as well as certain losses due to business interruption.. The insurance is offered as a group insurance through slaughterhouses, dairies or egg-packing plants which makes the insurance feasible for producers. The fees are collected through these businesses by withholding the insurance fee from the price paid to the producer for meat, milk or eggs. The main reason why certain producers do not have the insurance is that they are selling their products directly to the consumer. Individual insurances can be bought by such producers but they are more expensive.

9. France

See information in next appendix

10. Germany

STATUTORY DISEASES

Compensation schemes for direct losses

The German program for statutory diseases is set up by national legislation, but each Bundesland is responsible for running the program. The Bundeslander draws up the detailed rules of the application. The scheme is compulsory, also based on levies for the farmers. The program is run by an administrative council that decides the level of the levy etc. The administrative council is made up of farmer and ministry representatives. The levy varies between species according to the needs of the fund. The compensation payments are made from the available funds to 100% and will be refinanced to 50% from the Federal State. Usually the levy increases after a disease in order to refinance the outbreak. The levy is used to co-finance the Community Veterinary measures following a disease outbreak as well as testing, monitoring or preventive measures. No compensation is paid to farmers in the surveillance zones.

Compensation schemes for consequential losses

Public compensation of consequential losses and loss of revenues are not considered. Even directly affected farms do only receive the value of the killed and destroyed animals.

In Germany, the private “Ertragsschadenversicherung” indemnifies farmers against the full range of consequential losses as one of the coverage options, including those resulting from movement standstills.

OTHER DISEASES

Compensation schemes for direct losses

Private insurance. See 'Ertragenschadenversicherung' below.

Compensation schemes for consequential losses

Only private: see 'Ertragenschadenversicherung' below.

Recent developments in agricultural insurance schemes for animal diseases

As far as acceptance and market penetration is concerned, a comprehensive private livestock insurance scheme exists in Germany, includes loss of income and provides reliable protection against pests and diseases. The "Ertragsschadenversicherung" covers:

- loss of livestock and losses due to disturbed production;
- decrease of the value of the herd;
- losses due to business interruption and of transport and/or sales restrictions, due to:
  - accidents in the stock;
  - qualified pests and diseases (named by the German Tierseuchengesetz);
  - other infectious diseases;
  - loss of defined quality standard;
  - theft.

Insured is the "Ertragsschaden" (loss of income, revenue), which means that the diminishing gross margin with respect to the proportional on-going costs is paid out to the farmer. An "as if situation" is simulated between the projected income without business interruption and the real situation with the incurred loss. The sum insured consists of the annual turnover minus proportional costs following the production[9]. Participation level of dairy cows is over 50%, cattle 30%, sows 42% and hogs 23%. Insurance for sheep is not avail-

[9] See Wilkens/ Bruck Möller VVG Tierversicherung 9.Auflage #47-#53 to be published end of 2010.

able. Insurance for poultry is mainly offered by one special insurance company (R+V/VTV), offering coverage for broilers, layers and breeders. The market share of broilers amounts up to 60%.

The following reasons for (non) participating in the private insurance scheme are mentioned:

- Premiums are too high; it is difficult to communicate that even in disease free periods premiums have to be paid. The need for insurance depends on the risk assessment and risk management of single farms, taking into account the kind of production, equity capital cover and the management. The insurance premiums and indemnification payments will be balanced against the remaining business risk.
- Coverage inappropriate for small farms;
- Expiring farms do not need insurance coverage
- Livestock is no main pillar for sideline farms

Due to the structural change, the residual farms will expand the input of committed assets and the degree of specialization will increase so that the requirement for insurance will increase as well.

A problem of the existing private insurance system is that after an outbreak of a major disease in another EU MS or in the vicinity, the reinsurance market is no longer prepared to prolong the reinsurance contracts (Wilkens, 2010).

11. Greece

No information received from Greek authorities

Recent developments in agricultural insurance schemes for animal diseases in Greece

According to Wilkens (2010) the government operates a compulsory agricultural insurance scheme via the Greek Agricultural Insurance Organisation "ELGA". ELGA has the objective of organising and implementing programmes of proactive protection and insuring the production and assets of agricultural enterprises. More specifically, insurance with ELGA includes compulsory insurance against damage which is caused to for example animal assets of farmers. Persons who own breeding stock or poultry or domestically produced products and by-products of animal origin shall be subject to insurance. ELGA is funded by an 'income from special insurance contributions' (of which the fee is 0.5% of the value of the sold livestock production) and this constitutes the major financial source.

12. Hungary

(No information received from Hungarian Authorities)

13. Ireland

STATUTORY DISEASES

Compensation schemes for direct losses

For FMD, CSF & AI, direct losses are paid from public funding based on on-farm valuation of animals. A similar compensation scheme applies for TB eradication, but the programme is part-funded by the farmers (indirect levy for TB). There is also public funding for other notifiable diseases (Irish Class A).

Compensation schemes for consequential losses

No public or private compensation for consequential losses.

OTHER DISEASES

Compensation schemes for direct losses

Public funding for compensation of direct losses due to Irish class A diseases (notifiable).

Compensation schemes for consequential losses

No public or private compensation for consequential losses.

Recent developments in agricultural insurance schemes for animal diseases

None

14. Italy

STATUTORY DISEASES

Compensation schemes for direct losses

Government compensation complies with the principles listed in the Council Decision 2009/470/EC. Moreover, there is a voluntary insurance system regulated by an annual plan (Agricultural Insurance Annual Plan according to D. Lgs n.102 del 29 marzo 2004) that cover three risk (caused by major diseases FMD, brucellosis, pleuropneumonia, tuberculosis, leucosis): direct cost (not covered by other government compensation), disposal costs and consequential cost. The insurance system receives public support by a national fund (National Solidarity Fund).

Compensation schemes for consequential losses

Voluntary insurance system for compensation of, among others, consequential losses of notifiable (and other major) diseases, supported by public funding.

OTHER DISEASES

Compensation schemes for direct losses

Voluntary insurance scheme for compensation of, among others, direct losses due to major diseases like pleuropneumonia.

Compensation schemes for consequential losses

Voluntary insurance scheme also covers consequential losses for major diseases like pleuropneumonia.

Recent developments in agricultural insurance schemes for animal diseases

The 2009 insurance campaign was the fourth year of implementation of public support for farmers' insurance policies. Indeed, as was done in three years 2006/2008, using the maximum contribution of 50% of the premium, operators of the livestock sector have secured their livestock against the damage, not covered by other government compensation, caused by major diseases (FMD, brucellosis, pleuropneumonia, tuberculosis, leucosis).

After two insurance campaigns characterized by insurance subsidized coverage intended exclusively for cattle farms, in 2008 for the first time facilitated covers for pig farms were introduced and 2009 has seen the consolidation of these policies. In particular, the volumes are represented by major insurance contracts covering dairy cattle (91%), followed by pigs (5%), beef cattle (3%) and, finally, cattle fattening (1%). While the annual plan providing insurance benefits for other livestock (sheep and goats, poultry) and relative animal diseases, those hedges have not yet found concrete facilitated implementation.

Over 50% of the total value of insured property regarding cows lies in the Lombardy region, where there is the highest percentage of farms with more than 100 cattle. Therefore, large farms are more likely to contract insurance.

The following reasons for (non) participation are mentioned:

- Strong confidence in the public helps;
- Lack of budget;
- Complexity of contract procedures of insurance premium (farmers can trade only if associated);
- The insurance contract is more favourable for herds with large number of animals.

15. Latvia

STATUTORY DISEASES

Compensation schemes for direct losses

The public services provide compensation for direct losses caused by FMD, HPAI, and CSF.

Compensation schemes for consequential losses

There is public-private cooperation in compensation of consequential losses. [no more detailed information given]

OTHER DISEASES

Compensation schemes for direct losses

(No information received/not present)

Compensation schemes for consequential losses

(No information received/not present)

16. Lithuania

STATUTORY DISEASES

Compensation schemes for direct losses

Public-private compensation of direct losses.

Compensation schemes for consequential losses

Public-private compensation of consequential losses.

OTHER DISEASES

Compensation schemes for direct losses

No information

Compensation schemes for consequential losses

No information

Remarks by authors:

The response of the Lithuanian government was rather brief. However the following website gave the following information. http://ec.europa.eu/agriculture/analysis/external/insurance/annex16_en.pdf

There is agricultural insurance available for Lithuanian farmers, including animal insurance.

Animal insurance was started in 1991 and is provided for livestock, horses, sheep, goats, pigs; several companies also include bees, birds, fishes, etc. These animals can be insured of animal loss from:

- Non-communicable diseases (including forced slaughters if due to used
- medicaments and sticking animal can't be sold for slaughter)
- Infectious diseases (including forced slaughters);
- Natural forces or accidents: lightning, storm, blizzard, hail, rainfall, fire, electric current voltage, sunstroke, choke, self-strangulation, wild animals' attack, etc. (including forced slaughters if due to the before mentioned natural forces an animal has suffered an injury which will necessarily end in death);
- Theft or vandalism.

Several companies also offer insurance of healing expenses, comprising expenses for medicaments; veterinarian healing, diagnostic, laboratorial analysis; fee for the reference issued by the veterinarian. Animals can be insured regarding: market, residual or pedigree value.

There is partial compensation of insurance premiums by the government. Provided since 1992. The objective is to support voluntary insurance, which is very low, and together to decrease state expense for support of the aggrieved. Compensations reach up to 50%.

17. Luxembourg

STATUTORY DISEASES

Compensation schemes for direct losses

There is public compensation of direct losses.

Compensation schemes for consequential losses

There is public compensation of consequential losses.

OTHER DISEASES

Compensation schemes for direct losses

(No information received/not present)

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

Voluntary insurance of direct and consequential losses, 2% of farmers participating. Reasons for non-participation: high costs and public compensation of direct and consequential losses.

According to Wilkens (2010) Luxembourg has adopted the German private insurance scheme for consequential losses and the state supports the payment of the farmers paid premiums with 50%.

17. Malta

(No information received from Maltese Authorities)

18. Netherlands

STATUTORY DISEASES

Compensation schemes for direct losses

It is a combined public-private scheme, based on levies (compulsory). Producer contribution to direct costs of livestock epidemics is operated through Livestock Veterinary Fund (LVF). The current procedures for this fund were developed following the devastating epidemic of Classical Swine Fever 1997/98, when the government incurred large expenses in control measures. The LVF effectively sets the maximum amounts of producer contributions to cover the costs of veterinary actions in the case of a disease outbreak. Any spending required beyond this limit is covered by the Dutch government and the EU funds (through contributions from the EU Veterinary Fund). For example, in the CSF epidemic of 1997/98, producers contributed approximately EUR 20 million, or 0.1% of the total cost, the share of the EU was about 50% (but taking into account deductions, e.g. due to the perceived overcompensation of affected farms, it was generally reduced to about 30-40% of total costs), while the Dutch government covered the remaining part.

The LVFs are accumulated for all main livestock types: pigs, cattle, poultry, and sheep and goats. The contributions of producers to these funds are raised through levies per slaughtered/exported animal, or per units of milk sold in the milk sector. The size of the funds, and consequently the levy amounts, are based on a scientific risk assessment and the evaluation of the financial cost of the control measures. However, the definitive size of contributions is also subject to negotiations between the government and the industry. Currently, the assessment of the Fund amounts considers mainly the risks of major diseases FMD, CSF and AI. In principle, in the event of other large epidemics, additional assessment should be made and additional levies imposed. The combination of measures that are applied to control epidemics (scope of culling, recourse to preventive vaccination, etc.) is a factor in determining budget assumptions. For example, the difference in control strategies can explain the different amounts of funds for each of the five-year periods since 2000. For the period 2010-15 almost all maxima were decreased. It has also been agreed that the maxima are reconsidered each year depending on inflation and number of farms.

Compensation schemes for consequential losses

Several insurance products were introduced in recent years to cover consequential losses resulting from livestock epidemics (Avipol, Porcopol). In addition, e.g. cattle farmers can commercially insure their conse-

quential losses as part of their catastrophe insurance. This is a basic type of cover: if a herd is destroyed because of a FMD epidemic, the indemnity includes 15% of the insured value of the catastrophe insurance. There is no deductible and no actual loss assessment. Apart from these products related to epidemic diseases, Avipol provides insurance against some non-epidemic poultry diseases.

Following FMD and AI outbreaks, emergency funds were created by the government for farmers in distress. Those who were severely affected by the control measures and the consequences of livestock epidemics could apply for assistance and, after fulfilling a number of criteria, receive the aid.

OTHER DISEASES

Compensation schemes for direct losses

(No information received/not present)

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

Recently, the government stimulates private risk management initiatives to cover consequential losses within the framework of article 68 of the Common Agricultural Policy. These sector initiatives focus e.g. on the devaluation of hatching eggs during AI outbreaks or possible devaluation of vaccinated animals or their products after application of (compulsory) vaccination to control animal diseases.

19. Poland

STATUTORY DISEASES

Compensation schemes for direct losses

The current animal diseases compensation schemes for compensation of direct losses are strictly public (compensation of all direct losses from public funds). At present time, farmers do not contribute to the costs associated with the eradication of infectious animal diseases.

Compensation schemes for consequential losses

There are no arrangements concerning compensation of consequential losses caused by outbreaks of major contagious animal diseases. Compensation for farmers in purpose to eradicate infectious diseases are covered by the state budget and do not include lost profits related to their business.

OTHER DISEASES

Compensation schemes for direct losses

(No information received/not present)

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

There are public schemes for compensation of direct losses due to statutory diseases.

There are public schemes for compensation of consequential losses. [No further information given]

OTHER DISEASES

Compensation schemes for direct losses

(No information received/not present)

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

(No information received/not present)

20. Portugal

STATUTORY DISEASES

Compensation schemes for direct losses

There are public schemes for compensation of direct losses due to statutory diseases.

Compensation schemes for consequential losses

There are public schemes for compensation of consequential losses. [No further information given]

OTHER DISEASES

Compensation schemes for direct losses

(No information received)

Compensation schemes for consequential losses

(No information received)

Recent developments in agricultural insurance schemes for animal diseases

(No information received)

21. Romania

STATUTORY DISEASES

Compensation schemes for direct losses

Public compensation of direct losses.

Compensation schemes for consequential losses

Private compensation of consequential losses.

OTHER DISEASES

Compensation schemes for direct losses

(No information received/not present)

Compensation schemes for consequential losses

(No information received)

Recent developments in agricultural insurance schemes for animal diseases

Insurance activities (direct and consequential losses) developed especially for grains and agricultural land, less for animals. Less than 3% participation of livestock plants.

22. Slovakia

STATUTORY DISEASES

Compensation schemes for direct losses

The current animal diseases compensation schemes in Slovakia for compensation of direct losses is an insurance (voluntary) scheme.

Compensation schemes for consequential losses

The insurance (voluntary) scheme also compensates for consequential losses.

OTHER DISEASES

Compensation schemes for direct losses

(No information received/not present)

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

(No information received/not present)

23. Slovenia

STATUTORY DISEASES

Compensation schemes for direct losses

Expenses incurred in the suppression and eradication of diseases of the former A list - OIE at infected holdings are covered from the National Budget of the Republic of Slovenia (compensation for animals, objects and raw materials, destroyed feed, cleaning and disinfection, removal of dead animal carcasses,…).

In addition, compensations for killed or slaughtered animals, and for objects and raw materials, which have been injured, damaged or destroyed on account of measures instituted in case of the following diseases (in addition to the former A list - OIE) are covered from the National Budget of the Republic of Slovenia: Porcine Enteroviral Encephalomyelitis (Teschen Disease), Venezuelan Encephalomyelitis of Equidae (VEE), Aujeszky's Disease, TSEs, Brucellosis (excluding B. ovis), American Foul Brood, Enzootic Bovine Leukosis (EBL) and Bovine Tuberculosis (direct losses).

Compensation schemes for consequential losses

Indirect losses cannot be covered from the National Budget; however, in particular cases, the State may adopt *ad hoc* measures to aid the affected entities (e.g. in case of AI, CSF).

OTHER DISEASES

Compensation schemes for direct losses

In case of all other diseases, funds may be obtained under the Removal of Consequences of Natural Disasters Act, provided that the loss is greater than 0.3 tenth of a percent of the planned incomings of the National Budget.

Compensation schemes for consequential losses

In principle, the State neither covers any indirect losses, nor offers any insurance coverage.

Recent developments in agricultural insurance schemes for animal diseases

Animal diseases (of the former A list - OIE) are not part of insurance schemes.

However, up to 30 % of the amount, the State does co-finance insurance premiums for insurable animal diseases. Approximately 20 % of farmers are participating. Only coverage of direct losses. Reason for (non) participating: favourable epizootiological situation, insurance scheme that would include all the interested parties does not exist at national level.

24. Spain

STATUTORY DISEASES

Compensation schemes for direct losses

Currently, there is compensation for all the aspects considered in Council Decision 2009/470/EC. In addition, there is a voluntary insurance scheme for Brucellosis (Bovine, ovine and caprine), Bovine Tuberculosis, Enzootic bovine leukosis, Contagious bovine pleuropneumonia, Salmonella, Aujeszky, BSE, Foot and mouth disease, Classical swine fever, African horse sickness, West Nile fever, Newcastle Disease, Avian Influenza (Highly and Low pathogenic). This insurance scheme may be supported by public funds.

The insurance scheme is a compensation system for indirect and direct consequences of animal diseases. Premiums are subsidized by the government. Recruitment is voluntary. The indemnity insurance covers direct impact on the value of animals to the market price (mainly by the genetic merit of animals), taking into account the compensation awarded by the government. Therefore, the sum of insurance compensation and the government does not exceed the market value.

Compensation schemes for consequential losses

The voluntary insurance scheme (by Spanish Agricultural Insurance System) also compensates for consequential losses due to animal diseases.

OTHER DISEASES

Compensation schemes for direct losses

The voluntary insurance scheme (by Spanish Agricultural Insurance System) compensates for direct losses due to animal diseases.

Compensation schemes for consequential losses

The voluntary insurance scheme (by Spanish Agricultural Insurance System) also compensates for consequential losses due to animal diseases.

Recent developments in agricultural insurance schemes for animal diseases

Every year, during the months of September, October and November, the compensation of insurance are reviewed in order not to overcompensate, and the effects of this analysis are transferred to next year. Each disease has its consequences, direct and indirect, so insurance is designed in accordance with the nature of the losses and the existence of "spaces severance".

Percentages of farmers participating in the voluntary insurance scheme: dairy cattle 60%; beef cattle 10-15%; ovine 10%. For porcine, equine and avian species: insurance of these species were adopted two years ago. There is still very low recruitment, but the existence of insurance guarantees against animal diseases is driving the interest of farmers.

Compensation by the insurance scheme for direct losses (mainly by the genetic merit of animals) and consequential losses (mainly by immobilization of farming, health gaps). Regarding Salmonella, for example, farmers are compensated if the eggs of a positive farm should be sent to the egg processing industry (egg products). Each disease has its consequences, direct and indirect, so insurance is designed in accordance with the nature of the losses and the existence of "spaces severance".

The participating is voluntary. The lack of recruitment is due to:

- Farmers believe the government will always help;
- Farmers have no sense of risk, primarily in epizootic disease (FMD, etc);
- Lack of liquidity;
- Do not know the existence of insurance.

25. Sweden

STATUTORY DISEASES

Compensation schemes for direct losses

The compensation for statutory diseases is regulated by the Law on Epizootic diseases regarding serious animal diseases like Newcastle Disease, Avian Influenza and Foot and Mouth Disease.

Compensation is paid to the animal owner after he/she has applied for compensation to the Board of Agriculture. Costs that entitle to compensation are the value of the animals, loss of production as well as sanitation costs.

For contagious diseases, the level of compensation is 100 % (except for loss of production where the compensation is 50 %). Some production types like broiler production, which are subject to a higher risk of infection, are excluded from the state compensation measures.

Compensation schemes for consequential losses

Full compensation for production loss is paid for certain serious diseases: FMD, CSF, ASF, SVD and TSEs. The compensation for loss of production due to other contagious diseases is 50%. Only production losses directly caused by authority decisions are compensated, not for example losses due to the disease itself or the impact of fear of disease on for example farm tourism. Broiler production is excluded from the state compensation.

OTHER DISEASES

Compensation schemes for direct losses

The compensation is regulated by Law on Zoonotic diseases regarding salmonella.

Compensation is paid to the animal owner after he/she has applied for compensation to the Board of Agriculture. Costs that entitle to compensation are the value of the animals, loss of production as well as sanitation costs. For Salmonella, the compensation is 70 % if the holding is affiliated and 50 % if the holding is not affiliated to one of the voluntary control programmes for salmonella. This programme is administered by the industry, but approved by the authorities. The rules aim at reducing the risk of salmonella infection and facilitating decontamination in case of outbreaks.

Compensation schemes for consequential losses

Loss of production due to salmonella control measures is also compensated for.

Recent developments in agricultural insurance schemes for animal diseases

There are private insurance policies which provide coverage beyond the state compensation.

The most comprehensive schemes are those for broilers, where no governmental financing exists in case of disease outbreaks. The broiler association has a special agreement with an insurance company where a farmer may only join if he has a high level of biosecurity and is affiliated to certain surveillance schemes. Farmers who cannot or do not want to be parts of such schemes are referred to other more expensive insurances.
There is also a fairly similar scheme for laying hens, even though they get some governmental financial support in case of outbreaks. For laying hens, there is a special solution for outdoor farming, with a higher fee but the same level of payment in case of an outbreak.

About 97% of the broiler farms and 80% of the laying hen farms are affiliated.

The insurance scheme for broilers covers the value of the dead or killed animals and costs for destruction of carcasses. The insurance for laying hens covers:

- for diseases without public financing (salmonella) the value of animals, cleaning of premises and productions loss for a maximum of 12 months,
- b) for diseases with public financing it covers the part of production loss (50%) that is not covered by public funds.

Reasons for (non) participation in insurance schemes are: old stables, difficult to disinfect and giving poor protection against rodents and wild birds, small scale farms, and outdoor broiler farms.

26. United Kingdom

STATUTORY DISEASES

Compensation schemes for direct losses

United Kingdom: For FMD in cattle, sheep and pigs the government compensates destructed animals at 100% of the market value. There is no levy of farmers. The UK government pays some compensation for animals slaughtered due to Bovine Tuberculosis, Brucellosis and BSE in cattle as well as many other diseases. As far as poultry diseases are concerned, such as Avian influenza and Newcastle Disease, the government only pays compensation for birds slaughtered which are non-diseased (at 100% of their market value).

The UK government pays compensation for sheep and goats slaughtered due to scrapie; and salmonella in poultry/turkeys for which the government has statutory control plans. For Brucellosis, compensation is also payable in the event of animals being compulsorily slaughtered due to Enzootic Bovine Leukosis and Salmonella. The government pays some compensation for bovine tuberculosis (and BSE, EBL, and Brucellosis) is paid; primarily this is determined by table valuations using average sales prices for 47 different cattle categories.

The Scottish Government currently pays (through the GB animal health and welfare budgets) compensation at market value for those animals that are destroyed. Scotland generally also pays (through the same budgets) the costs associated with cleansing and disinfection, and transport and disposal (this is disease specific).

In Northern Ireland for FMD in cattle, sheep and pigs, the government compensates destructed animals as follows: affected animals are paid at the value immediately before it became affected; in every other case, animals are paid at the value of the animal immediately before slaughter. As far as poultry diseases are concerned, such as Avian influenza and Newcastle disease, the government pays compensation at the value of the poultry immediately before slaughter. No compensation is paid for Aujeskzy's Disease in pigs.

In Wales, the UK position applies in general terms, but there are differences in respect of, for example, compensation on Bovine TB, table evaluations in England versus market valuations in Wales (Welsh Assembly Government).

Compensation schemes for consequential losses

The UK government does not pay compensation for consequential losses. However, there may be private schemes available to farmers in the event that such losses are incurred.

The Scottish Government also mentioned that there are currently no standing arrangements for compensation payments for consequential losses. But, public money has been used in the past to support industry. For example, during FMD 2007, a sheep welfare support package was established to address urgent animal welfare problems facing light lambs that were normally exported at that time of year. A fixed rate was paid for each lamb sent to slaughter.

OTHER DISEASES

Compensation schemes for direct losses

For Aujeszky's disease in pigs the UK government will pay market value immediately before slaughter, but up to a certain maximum price. The UK government pays compensation for salmonella in poultry/turkeys for which the government has statutory control plans.

Compensation schemes for consequential losses

(No information received/not present)

Recent developments in agricultural insurance schemes for animal diseases

None in the United Kingdom, as far as is known. Insurance is down to individual livestock keepers, and the CVO has no information on the insurance take-up. Insurance is normally available, but can be subject to high premiums depending on location. There is insurance available to cover TB, but the uptake is variable and the type of animal covered tends to be the higher value animals, where the compensation paid under the table valuations may not cover the value the farmer attaches to the animal. Otherwise premium levels in the higher risk areas may not make this an attractive option. Some cover is limited (to 25% of the market value of the animal) which harks back to the time when the Government paid 75% of the value of the animal, so this made up the remainder of the value.

In Northern Ireland, insurance for consequential losses is available, but the compensation rates probably mean that only a proportion of Northern Ireland farmers will secure such insurance.

APPENDIX 3: EVALUATION BY THE INDIVIDUAL MS OF THE DIFFERENT POLICY OPTIONS

1. Austria

Minimum harmonisation of criteria

The following should be harmonised: categories of covered animal diseases/disease types; compulsory participation of livestock farmers; the objective of the CRSSs, including: efficient risk transfer from farmers to CRSS; support of on-farm risk management; differentiation in financial contributions between cost sharing actors; risks and losses (direct/consequential) that can be covered by the CRSS; as well as WTO compliance.

Peace-time support or co-financing losses in times of crisis

EU financial contribution also in peace-time as a benefit for exercises made well in the past

Compensation for which losses

Compensation for direct losses and consequential losses.

Ways of EU support for direct losses

Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS. Previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC (instead of the current compensation of real expenses). These rates should be established by use of average market price plus additional fees (i.e. for mountain farming, breeding program.

Regarding compensation of indirect losses

EU compensation of indirect losses is desirable and motivating, but hard to define and quite incalculable.

Other ways of providing EU financial aid

(No information)

2. Belgium

Minimum harmonisation of criteria

Harmonisation of categories of covered animal diseases/disease types:

- Epizootic diseases: e.g. FMD, CSF, ASF, AI, NCD.
- Diseases with an important zoonotic risk: e.g. Rabies, BSE, Tuberculosis, Brucellosis, Salmonellosis.
- Other diseases with an impact on farm level and or covered by official national programs: e.g. Aujeszky, IBR, BVD, Paratuberculosis.

Preferably compulsory participation of livestock farmers.

The objective of the CRSSs should be an efficient risk transfer from farmers to CRSS, but also proportionate risk transfer to al cost sharing actors. Support of on-farm risk management. Differentiation in financial contributions between cost sharing actors. Direct losses should be covered by the CRSS. Concerning indirect losses (in Belgium the competence of the Regions): in Belgium there has been no real discussion whether consequential losses should be taken on board of the CRSS. Taking into account the nature and categories of consequential losses, it can be expected that the costs of consequential losses are far more important than the direct losses.

One particular category of consequential losses that cannot be neglected are emergency situations due to stand-still. This standstill can cause in a short term immense welfare and technical problems on the farm, depending on the species (pigs, poultry) and category (piglets, fattening pigs, day old chicks, broilers, raring poultry).

There also should be a harmonized maximum threshold for public funding. WTO compliance if possible within the EU objectives.

Peace-time support or co-financing losses in times of crisis

It should concern peace time support **and** the co-financing of losses in times of crises. Peace time support will support prevention, control and surveillance programs. Nevertheless, even with this support, it will not always be possible to prevent outbreaks of highly contagious diseases. For this reason, the two forms of support are highly desirable.

Compensation for which losses

See above (harmonisation of criteria).

Ways of EU support for direct losses

(Question was found to be not so clear)

Regarding compensation of indirect losses

Compensation of indirect losses is probably feasible. It is necessary to clarify first if this question concerns DG SANCO or DG SANCO and DG AGRI in order to have a clear view on the competences. The indirect losses are probably determinable and measurable.

Outbreaks and losses are a risk linked to farming. An outbreak of an epizootic disease can have many causes. It is up to the government to ensure that there is adequate legislation, control and penalty policy. Indirect losses are normally the result of measures taken by the authorities in relation to the disease control and eradication measures. Some indirect losses can be determined in an objective way. Other indirect losses such as price effects or losses due to emergency vaccination are more difficult to control, but it is almost impossible to prove the unintentional character of these indirect losses.

A good communication between the government and the competent authorities and all stakeholders of the food chain as a proactive action should prevent moral hazards.

Arguments in favour of compensation of indirect losses: it supports the sustainability of the farms, also in the period after an outbreak of an epizootic disease. Arguments contra: taking into account the nature and categories of consequential losses, it can be expected that the costs of consequential losses are far more important than the direct losses.

Implementation of compensation of indirect losses could be realised with an EU regulated legal framework. There is need for a adequate budget with a proportionate public/ private and EU shared financial responsibility.

Other ways of providing EU financial aid

Via the CAP budget, rural development budget. Also EU financial aid provided that EU can accept national financing with a budget of private origin used as a public budget.

3. Bulgaria

Minimum harmonisation of criteria

All mentioned criteria should be harmonised on EU-level, e.g. categories of disease types, compulsory or voluntary participation of livestock farmers, the objective of the CRSS, maximum threshold for public funding and WTO compliance.

Peace-time support or co-financing losses in times of crisis

The EU financial contribution to CRSSs in Member States should concern both peace-time support and co-financing of losses in times of crisis.

Compensation for which losses

Direct loses should be compensated.

Ways of EU support for direct losses

The following should be financially compensated by the EU: a) support to prevention and surveillance programs and b) compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator.

Regarding compensation of indirect losses

No compensation of indirect losses.

Other ways of providing EU financial aid

No

4. Cyprus

Minimum harmonisation of criteria

Harmonisation of criteria regarding categories of disease types and voluntary participation of livestock farmers is needed. No harmonisation needed regarding maximum thresholds for public contribution and WTO compliance.

Peace-time support or co-financing losses in times of crisis

Also peace-time support, which will assist in the prevention of disease outbreaks.

Compensation for which losses

Compensation for direct losses and also for consequential losses like business interruptions, but only under conditions, e.g. precautionary biosecurity measures.

Ways of EU support for direct losses

Preferred is support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS.

Regarding compensation of indirect losses

No answer

Other ways of providing EU financial aid

No answer

5. Czech republic

Minimum harmonisation of criteria

Criteria regarding CRSS conforming to option 3a and 3b that should at least be harmonised are: categories of disease types (diseases with zoonotic potential and cross-border diseases), compulsory participation of live-stock farmers, and 100% maximum threshold for public funding, WTO compliance.

Peace-time support or co-financing losses in times of crisis

No answer

Compensation for which losses

Also compensation of consequential losses.

Ways of EU support for direct losses

a) support to prevention and surveillance programmes, e.g. on the basis of livestock numbers covered by the CRSS and b) compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator.

Regarding compensation of indirect losses

Consequential losses are considered to be determinable and measurable.

Regional Veterinary Administrations (RVAs) are responsible for guaranteeing of these losses in the Czech Republic. The Ministry of Agriculture provides compensation upon the request of a farmer, with the confirmation by the RVA concerning the validity of submitted data.

Arguments for compensation: problems with business continuation. Arguments against compensation: difficult evidence of these losses, problems in the determination of the amount of compensation. The respondent is against the compensation of indirect losses. The farmers should have voluntary insurance to cover the consequential losses.

Other ways of providing EU financial aid

No answer

6. Denmark

Minimum harmonisation of criteria

It is important to ensure conformity with respect to the categories of animal diseases that may be compensated. Participation of the farmers should be compulsory. It can be discussed whether or not to include the hobby sector. If the system is introduced as a voluntary measure the effect of transferring a higher degree of the responsibility and costs to the industry is lost in all those countries not having established industry funded emergency arrangements will choosing status quo. A voluntary system will maintain the distortion of competition which is present in the existing system. Therefore, option 3b is not a proper solution.

As we have understood the objectives of the CRSS, it is to transfer the risk from the “national budgets” to the farmers and not a transfer of the risk from the farmers to a “system”, CRSS.

Option 3a will enable a development of a system where the individual farmer is responsible for reducing the risk of introduction of diseases to his livestock. In order to remunerate the farmer's positive initiatives on increasing the on-farm biosecurity, he should contribute less to a common veterinary emergency fund compared to farmers having a "high risk" production. Economic incentive is normally the most efficient way of changing people's behaviour.

The economic structure in the compensation system should effectively support farmers working for implementing risk mitigating measures. A simple and harmonised risk classification system should be developed. The Belgian system with a reduced fee to the veterinary fund from farmers having one-to-one trade would probably regulate the individual farmer's trade patterns.

A harmonisation of the compensation for the direct and consequential losses is essential in order to prevent distortion of competition within the Member States.

Maximum threshold for public funding depends of the interpretation of public funds. The German, Dutch and Belgian system is build up as a "public fund" with a superior public control, although established by private means. In the Netherlands, thresholds have been established for the contribution of the veterinary fund. It may be relevant to establish harmonized thresholds, as worst-case-scenarios of disease outbreaks may undermine the economical basis for the affected animal sector. In the Netherlands an over limit for payment from the different sector's veterinary emergency funds exists and costs beyond this limit is covered by national means. This would be a way to go.

If public funding is meant as national and EU funding, a maximum threshold would probably result in problems with effective disease control. Who is taking over when the limit is reached? If farmers affected with a disease late in an animal health crisis are not sure of being compensated, they may tend to be more reluctant to report suspicions or outbreaks which in the end may prolong the crisis.

Regarding WTO compliance, it is our impression that all the already existing systems for compensation of disease outbreaks in EU are in compliance with the WTO rules and as a new harmonized system will be based on the existing systems – probably a mixture – it is difficult to see that it suddenly should be in incompliance with WTO.

It is important with a framework of harmonized criteria whether it is left to the individual Member States to establish an industry financed emergency fund – either a veterinary fund or a kind of insurance arrangement like the German "Tierseuchenkasse". The harmonized framework should include clear rules for the balance of the public and the industrial contributions and on a specification of the eligible costs in order to avoid distortion on competition.

Peace-time support or co-financing losses in times of crisis

If peace-time support covers disease eradication programmes and co-financing of crisis covers all disease outbreaks of prioritized diseases our proposal would be the following. There is a number of on-going eradication programmes in some Member States, which shows important progresses. Stopping the support here and now would in worse case result in already invested money would be lost. Therefore, if support to animal disease eradication programmes should be discontinued, there should be a proper transitional period e.g. 5 years. If such programmes should be continued on national basis via funding from industry or combined industry-national funding, harmonized rules should be established on the degree of national public engagement. A stop of EU co-financing of such programmes with a proper transitional period should encourage Member States with such programmes to increase the efforts to collaborate with the industry in order to finalise those programmes within a limited time frame.

For certain diseases like rabies (important zoonosis), where EU co-financing has been granted for vaccination programmes of wildlife in countries bordering areas with endemic rabies e.g. the new Member States in east, a system of full Community funding (without national co-financing) of such programmes should be established in order to prevent the disease to spread further into the Community. The same for vaccination campaigns in third countries and neighbouring EU countries against e.g. FMD or bluetongue, in order to prevent the spread to the Community. Support to such programmes should continue.

As EU via co-financing of disease eradication programmes has reached a relatively high animal health level, it would be amiss to transfer the responsibility of finalising such programmes on national basis as it is of the interest of the whole Community to avoid the introduction of those diseases. The EU co-financing of disease outbreaks of prioritised diseases should be maintained, but in a less complicated (less bureaucratic) way than today. Eradication of the serious contagious diseases is crucial for the international trade and, therefore, for the economy of the Community.

Compensation for which losses

EU co-financing should ideally only be focusing on direct losses.

In case of disease outbreaks, unaffected farms within the 3 km protection zone will be placed under serious restrictions, especially movement restrictions, which may result in great losses. Farmers “caught” within the zone do not receive any compensation for indirect losses, which may give serious economic problems. Therefore, such farmers could tempt to get their herd infected as they would from an economical point of view be better off with the compensation for the value of the culled animals. This problem should be addressed when considering the limitations on the coverage of the co-financing. Such losses might be covered by national industry sponsored emergency funds as a harmonized solution.

Ways of EU support for direct losses

In our view direct losses are losses directly connected to disease eradication. We regard support to preventive measures and surveillance programmes as being peace-time support.

Preventive measures e.g. development of biosecurity measures on farm level is the cornerstone in the new animal health strategy and should therefore be supported. A support based on the livestock number might be an un-bureaucratic way of administrating such a system. Then the individual Member States should be responsible for distributing the support. The distribution of the support should be based on harmonised guidelines.

Compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator is the way it has been administered until now with an EU-compensation of 50 % and it is relatively easy to handle. The specific percentage for future co-financing should be discussed.

A flat rate for all other losses would be an ideal solution. The existing system is extremely labourious for both the Commission and the Member States, so a flat rate would be an excellent progress. The rate could be established as a fixed percentage of the value of the culled animals calculated based on a scrutiny of the average costs of other losses of former disease outbreaks. By this way it is only the documentation for the valuation of the animals that is needed, making the system very simple, so that all the accounting can be finalized shortly after the valuation of the price of the animals.

The general Danish opinion is that the EU support to the agricultural sector should be reduced as much as possible. Therefore, the above mentioned factors should be sufficient.

Regarding compensation of indirect losses

It will be very difficult reaching a uniform estimation of compensation of indirect losses as it may vary significantly between the Member States due to different level of prices and different development of the livestock sector. It will probably create problems to get an objective estimation of the indirect losses, unless a special calculation model is developed. This will create a very bureaucratic system which inevitably will cause endless discussions. A flat rate compensation scheme might be used.

It is difficult to determine whether a loss is accidental and unintentional or deliberate. In many cases it may not be decided without a legal dispute. A prevention of fraud may require a very intensive scrutiny of all documentation, which is difficult to justify as the costs for the scrutiny may surpass the compensation.

It must be expected that all farmers having experienced a disease outbreak will have indirect losses, so by using the material on disease outbreaks present in the Commission the frequency and probability may be calculated. In most cases where restriction zones have been established, farmers within the zone may have

experienced indirect losses. The number of farms within these zones also appears in the material reported to the Commission in connection with the disease outbreaks.

In favour of compensation of indirect losses: The only case where coverage of indirect losses could be relevant is in compensation for indirect losses for farms caught by the movement restrictions within 3 km zones. In longer crisis situations such farmers could benefit of getting their livestock infected with the disease as they in such a case will be economically compensated within a short time window, while by remaining under restrictions they have to cover their losses for a long period themselves. This is the only case where coverage of indirect losses could be relevant in order to prevent the temptation. An alternative could be to offer such farmers loans on favourable conditions. It may be a better solution.

Against compensation of indirect losses: In other cases, it will be very difficult to estimate indirect losses in an objective way and the document control that has to follow will be very time consuming and bureaucratic.

If coverage of indirect losses should take place, it might be better given as loans on favourable conditions.

Other ways of providing EU financial aid

Parts of the direct agriculture subsidies may be transformed to subsidies in connection with investments in improved biosecurity.

Final remarks

Main issues:

- Only outbreaks of prioritised diseases should be co-financed.
- Except for certain zoonoses and highly contagious diseases, co-financing of surveillance and eradication programmes should be phased out.
- The compensation system should be simple and where possible exchanged with flat rate solutions.
- A form of industry sponsored emergency fund (Tierseuchenkasse or veterinary fund) should be compulsory in all Member States.
- Levels for compensation should be specified for EU, national and industry funding with emphasis on the industrial compensation.
- Only the value of the culled animals, destruction of material and animal products and the preliminary cleaning and disinfection should be compensated by public funding (EU and national).
- Harmonized rules should be established for the elements and the amounts compensated.
- Distortion of competition should be avoided.

7. Estonia

Minimum harmonisation of criteria

Criteria regarding CRSS conform option 3a and 3b that should at least be harmonised on EU-level are: categories of covered animal diseases/disease types, compulsory participation of livestock farmers, differentiation in financial contributions between cost sharing actors, risks and losses (direct/consequential) that can be covered by the CRSS, maximum threshold for public funding, WTO compliance.

Peace-time support or co-financing losses in times of crisis

No answer

Compensation for which losses

No compensation for consequential losses.

Ways of EU support for direct losses

Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS, compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator, previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC (instead of the current compensation of real expenses).

Regarding compensation of indirect losses

Compensation of indirect losses is not feasible.

Other ways of providing EU financial aid

No

8. Finland

Minimum harmonisation of criteria

It is self-evident that any CRSS must be compliant with the WTO rules, so there is no need to specify that separately in veterinary legislation. If anything needs to be harmonised at EU level, that could be a general requirement that CRSS must include some incentives for on-farm risk management and a maximum threshold for public funding of certain animal diseases covered by EU-legislation. Otherwise it is better to maintain maximum flexibility.

Peace-time support or co-financing losses in times of crisis

Since the overall legal systems and farming communities are so different in different Member States, it may not be wise to introduce EU financial contributions directly to CRSSs in Member States. That might lead to a very complicated and bureaucratic system with huge administrative costs. Instead, EU should continue to co-finance certain specified losses (at a minimum catastrophic event) as before, and in addition direct support for on-farm bio-security measures could be provided through the well established CAP-system.

Compensation for which losses

The EU financing support could be limited to direct losses. There are good reasons to provide compensation also for business interruptions, but since that is a more complicated matter it may be better to leave that to Member States or CRSSs.

Ways of EU support for direct losses

The simplest way to provide EU support would be to establish flat rates based on number of animals killed. That flat rate could also cover costs for cleaning and disinfection. The rates could be established based on the average compensation paid until now, and would in any case be lower than the total costs (the rest would come from the Member State budget or CRSSs). Such a system would be simple and save a lot of administrative costs.

Regarding compensation of indirect losses

Bans on movement of animals or products to or from farms can cause huge losses, which sometimes far exceed the losses caused by the culling of animals. When restriction zones (protection and surveillance zones) are established around an outbreak, all the farms in the area suffer from these losses, although only one may be infected. If only the infected farm gets compensation, that leads to a moral hazard for the other farms which remain free of disease. For that reason, compensation for the business interruption caused by the movement bans should be paid to all farms within the zone. Such compensations are feasible as long as the zones remain fairly small (3 and 10 km), but if the whole territory is covered by movement bans, compensation may no longer be feasible. The size of such losses can be calculated based on the previous income of the farms, and the frequency and probability of them can be estimated as easily as direct losses. The compensation need not necessarily be 100%, but some compensation should be paid.

As such compensations are slightly more complicated to calculate than compensation for culled animals, it may not be advisable to use EU funds for that. However, Member States should have the right to pay such compensations, if deemed necessary, or they could come from CRSSs. In Finland, compensation for business interruption in relation to exotic diseases are paid from public funds to infected farms as well as other farms affected by the movement bans. In the case of salmonella and certain other non-exotic diseases, the voluntary group insurance pays compensation for business interruption in the infected farms.

Other ways of providing EU financial aid

Direct support for bio-security programmes on farms could be provided through the CAP, as is already provided for measures preserving the environment and animal welfare.

A suitable way of addressing the losses of slaughterhouses, dairies, egg-packing plants and similar enterprises situated in restriction zones should be developed.

9. France

Answer of the French authorities to the questionnaire "European veterinary Funds"

For submission to IBF International Consulting

Consulting agency elected by European commission (DG SANCO)

Answer to the questionnaire

It was privileged a written and argued answer to the questionnaire of the consulting agency in order to clarify the French orientations and positions resulting from the Sanitary General Meeting, while positioning, when that is possible the various options of the questionnaire.

I - Information brought up to date about France

In 2009, France was given a co financing of 37.15 M€ under the "European Veterinary Funds" (EVF) (decision 2009/470/CE), broken down as follows:

- 0.67 M€ for Classical Swine-Fever (CSF)
- 0.14 M€ for Avian Influenza (AI)
- 10 M€ for Transmissible Spongiform Encephalopathy (TSE) / Bovine SE
- 25 M€ for Bluetongue (B), corresponding to a first section
- 1.34 M€ for zoonotic salmonellas

These five actions are part of the framework of the annual programs of control, eradication and surveillance co financed under chapter III of the Decision 2009/470/CE.

The Decision also envisages the possibility of financing emergency interventions. The use of this procedure remains low. However it was used last years for some animal diseases' outbreaks. As regards Bluetongue, following the appearance of the serotypes 1 and 8 in France in 2007, an emergency vaccination plan was approved by the Commission in 2007 and 2008 by Decision 2008/655 for an amount of 27 M€ of which 21.1

M€ have effectively been refunded by now. As per the fight against poultry diseases, a request for co financing was put forward due to an outbreak of Newcastle disease in 2006 and 3 outbreaks of Low Pathogenic Avian Influenza in 2009. None of these procedures succeeded.

Besides, the Community decision 2010/712/UE of November 23, 2010 approved the requests for Community co financing proposed by France under the programs of surveillance, eradication and control against Bluetongue, zoonotic salmonellas, CSF, AI and TSE planned in 2011[10].

II - Devices of compensation

1. Direct losses

The direct losses represent the immediate financial repercussions for stockbreeders such as the slaughter of animals or the destruction of contaminated products resulting from the confirmation of a legally notifiable (considered contagious) disease in their breeding.

Some of these direct losses are eligible with co financing under the European Veterinary Funds within the framework of annual eradication programs (slaughter / stamping out for salmonellas, ESB or scrapie) or possible emergency interventions.

As regards disease control legislation (sanitary policy), **compensation for direct losses is primarily public.** Thus the budgetary program "food safety and quality" (program 206) of the ministry in charge of agriculture, deals with, pursuant to the provisions of the rural code and maritime fishing, and the texts of application of the latter[11], the following expenditures:

- the cost of slaughter of animals
- the costs of expertise on the value of the animals slaughtered
- - the compensation for the objective (real) commercial value of the animals slaughtered

[10] The ceiling of the Community co-financing associated with these programs is of 25.79 M€.
[11] In particular the decree of March 30, 2001 modified.

- - the expenses directly related to the renewal of livestock[12]
- - the cost of destruction of livestock products and food
- - the compensation for the commercial value of livestock products and food destroyed

On direct losses and other compulsory expenditures, co financing under the EVF relates to:

*** for emergency[13] interventions**

- the compensation of the slaughter of animals
- the compensation of the destruction of animals (carcass disposal)
- the compensation of the destruction, if necessary, of animals' products
- the compensation of the destruction of food and material contaminated[14]
- the cleaning, the desinsectization and the disinfection of the exploitation and the material
- the supply of vaccines
- the execution of vaccination

*** for the national programs of control, eradication and surveillance of animal diseases and zoonoses[15]**

According to the diseases/zoonoses and associated[16] costs or measurements:

- purchases of traps, soft foods and vaccines
- expenses of supply and distribution of traps, soft foods and vaccines

[12] Include medical expenses of introduction, forwarding and transport costs, expenses of disinfection of breeding buildings, additional requirements in repopulation, temporary deficit of production resulting from the slaughter of animals.
[13] Chapter II, section 2 of the decision 2009/470/CE
[14] Materials present on the exploitation, insofar as they cannot be disinfected.
[15] Chapter III of the decision 2009/470/CE. Diseases and zoonoses mentioned in the appendix I of the aforesaid decision.
[16] Are presented here only the costs relating to the diseases for which a Community request for cofinancing was made by French authorities (bluetongue, salmonellose, classical swine-fever, TSE, avian influenza).

- operations of vaccination (administration of vaccines)
- analyses[17]
- the serotypage of isolates
- the value of slaughtered animals and of destroyed livestock products
- virological and serological tests
- samplings

NB: The cost of vaccinations, detections (screenings), entomological surveillance constitute obligatory expenditures which can be comparable to a direct cost of the control against a disease.

As regards legally notifiable (considered contagious) diseases, if preventive and surveillance measures depend in major part of professionals, with regard to control measures, the role of the State is major. National public finances thus cover a big part of direct losses associated with control. For some diseases (TSE, salmonellas), a Community participation is obtained via the co financed annual programs.

Professionals can nevertheless take part to some extent in the assumption of responsibility of these losses. This participation can take the form of an individual assumption of responsibility of the stockbreeder or the intervention of professional[18] solidarity funds, which can cover - if necessary in complement of public allowances - certain costs of control against diseases (vaccines, slaughter…).

2. “Indirect” losses

Are regarded as “indirect losses” the losses (losses of profits or additional costs) resulting directly from the disease or a modification of the lawful or economic environment consecutive to the disease’s outbreak. Among these losses are the animals mortality, the zootechnical performances fall, the immobilization (food,

[17] Analyses of laboratory for purposes of the virological, serological and entomological surveillance, bacteriological analyses, genotypic analyses,…
[18] It is here in particular made reference to “hard blows” funds and “Bluetongue” funds instituted by the National federation of the groupings of sanitary defense (FNGDS) or by its departmental groupings.

care) costs of animals following an administrative decision of prohibition of movement/circulation or sale/marketing of the animals, costs related to commercial downgrading of the products put on the market.

Part of these losses is the subject of public finance ensured by program 154 of the ministry in charge of agriculture. This financing consists of the assumption of responsibility of exceptional crisis measures, if necessary in counterpart of the particular measures taken by the European Union (cf below), in particular under the assistances of the mode "of minimis" (minimum?). Nevertheless, this government aid covers badly or in exceptional circumstances these costs, even not at all for some of them (lower zootechnical performances, commercial downgrading,…) ; the assumption of responsibility of these costs being then only born by professionals or through devices/mechanisms of professional[19] solidarity.

The European Union intervenes for its part through the provisions of articles 44 and 45 of the regulation named « single OCM »[20], which envisage exceptional measures of markets support in the event of serious disturbances on the Community market (meats and poultries sector) or of loss of confidence of consumers (poultry sector).

Within the framework of the agreement on the results of the PAC (Politique Agricole Commune (or Common Agricultural Policy) and pursuant to article 71 of (EC) Regulation n° 73/2009, France notified (August 2009) to the European commission its intention to set up in 2011 the device of mutualisation (shared) funds. This device, which aims at a better cover of the "economic losses" consecutive to an animal or vegetable disease or to an environmental incident, leads to a sharing of financings between the professionals (35%), the Member States and the European Union (65% including 75% of Community co-financing on behalf of the State).

3. The insurancial systems of the agricultural sanitary hazards

The General sanitary meeting (Etats Généraux du Sanitaire - EGS) joined together during the first quarter of 2010 all the actors of the sanitary policy (administration, trade unions, scientists,…) in order to reach a collective and shared vision of the national sanitary device, in a deep change context. Group 4 was dedicated to the questions of financing and mutualisation (sharing fund).

[19] It can be quoted here the "foot-and-mouth disease" funds of the FNGDS, which ensures a contractual compensation by animal in the event of the blocking of exploitations following an outbreak.
[20] Regulation (EC) n° 1234/2007 of the Council of October 22, 2007.

Within this work group, the place and the role of the insurance companies in the agricultural world were examined, more particularly on sanitary questions. It was thus noted that the principal losses are currently covered either by the State[21] or by mechanisms of professional solidarity (or by cofinancing between these 2 actors).

The insurance consequently appears likely to intervene primarily in complement of the compensations given by the various established devices.

In the animal field the presence of products of insurance is different due to the fact that it is meant to cover losses due to a legally notifiable (considered contagious) disease (Maladie Réputée Contagieuse or MRC) or not.

No product of insurance exists to cover direct losses due to legally notifiable (considered contagious) disease (Maladie Réputée Contagieuse or MRC). The existing contracts of insurance cover only direct losses consecutive to other sanitary risks, such as accidents, fires, etc

Concerning indirect losses, some products of insurance exist in the event of legally notifiable (considered contagious) disease (Maladie Réputée Contagieuse or MRC), in particular to cover complementary compensations related for example to the immobilizations of animals within an farm. On the other hand, the offer of insurance products is more important relating to indirect losses consecutive with other sanitary risks.

In practice, even if the insurance products exist on part of the above-mentioned losses, not or partially covered by public or professional compensations, they remain little subscribed by the farmers[22].

The absence of insurance products allowing to cover the indirect losses of a sanitary incident and in particular consecutive to a legally notifiable disease (considered contagious - MRC), can be explained by the difficulty to ensure this type of risk hardly to evaluate (or to define as a model or type) and by the big part of public compensation in the field of legally notifiable diseases.

Opinion on the public expenditure in terms of prevention and surveillance of animal diseases? Motivations?

Today preventive measures concern professionals.

During the General sanitary meeting, it was confirmed that the prevention, namely all measurements and actions contributing to avoid the appearance or to reduce the occurrence of diseases within livestock, was to remain under the responsibility of the professional world (cf below).

[21] If necessary, on the basis of exceptional mechanisms (ex: assumption of responsibility of Bluetongue mortality).
[22] As example, 3% of the stockbreeders would benefit from a “animals mortality” contract, source: French federation of the insurance companies (FFSA).

The State has primarily in this field an inciting role, in particular by encouraging the installation of guides of good practices within the professional[23] sectors.

The State can in addition condition the payment of government aid to the implementation of these good practices.

In addition, to date, the assumption of responsibility of diseases surveillance is shared between the State and the professionals. One of the principal conclusions of the General sanitary meeting consisted in planning the installation of an epidemiosurveillance platform in the animal sector, joining together all the public and private actors. This mechanism aims to improve the collection and exploitation of surveillance data, animate surveillance networks, ensure the diffusion of epidemiological information and finally coordinate the pooling of information resulting from international health monitoring.

In any event, public expenditures (Member State and European Union) allocated to animal diseases prevention and surveillance constitute effective means of ensuring follow-up of livestock sanitary status, of acting upstream to the outbreaks and sanitary crises declaration and thus take part in the farms economic viability. The disengagement of public authorities of this policy would undoubtedly cause a less control of diseases' outbreaks detection, a greater propagation of the latters and, finally, an increased cost for the actors concerned with the risk management in the name of protection of public health (zoonoses) and animal health.

Questionnaire

The elements provided by the consulting agency appear to us insufficient to take position on the various options presented in the questionnaire. Consequently, it was privileged a written answer to the great sets of themes suggested in the questionnaire, instead of the exhaustive filling of the questionnaire. However, as far as possible, comments are emitted on certain of these options, if necessary according to the sets of themes approached.

1. Judgement of the scenarios/options in comparison with the orientation to prevention and incentive

[23] In the poultry sector, as regards fight against the salmonellas, the sanitary charter conditions the State participation of the compensation for control costs in the respect of the provisions of this charter and of a compulsory control program.

It is advisable here to consider the biosecurity, at borders, in breeding and throughout the food chain of production and marketing of animals and livestock products, as an integral part of prevention and fight against diseases. For this purpose, it appears desirable that these issues are integrated in the future "animal health law"; and, if necessary, that a coherence with the provisions of the package hygiene is ensured, which gives already a report on good manufacture, hygiene, and agricultural practices.

At this stage, it is necessary to recall that the responsibility for the definition and the implementation of measurements of biosecurity concerns the operators (on an individual or collective level). The State, which must be able to create a minimum base by lawful way, must moreover have an inciting role, and encourage the installation of guides of good practices within professional sectors, which must result in a lightening of constraints and controls weighing on breedings. Nevertheless, it is important to stress that these measurements will be effective only if they are validated scientifically, adapted to each sector and production mode and treated on a hierarchical basis according to their importance and the awaited level of protection.

In addition, it is advisable to recall that the Community strategy of animal health plans to support measures of biosecurity in farms, pursuant to the quote "prevention is better than cure" [24].

The current device (option 1) undoubtedly remains perfectible in terms of prevention, insofar as the financial indemnisation of the national and Community authorities is not conditioned with the obligatory and effective installation by professionals of preventive/biosecurity measures. The definition, at community level, of a framework or regulations on the matter (option 3a) could be likely to make evolve/move practices in this field.

2. Judgement of the scenarios/options in view with the balance of distribution of costs and responsibilities between Community institutions, national authorities and agricultural professionals

A cycle of national reflexion called "General sanitary meeting" (January-April 2010), joining together all the actors of animal and vegetable health in a common debate on the assessment and prospects for the French sanitary mechanism, made possible to release broad outlines and development tracks for an evolution of this device.

One of the strong orientations which came out from this collective reflexion exercise consists in envisaging an assumption of responsibility of the costs of sanitary policy according to the sanitary and economic stakes

[24] See the communication of the Commission to the Council, the European Parliament, the Economic and Social Committee European and the Committee of the areas, COM 539 (2007).

inherent in the diseases. Thus, in order to optimize the efficiency of public intervention, the State action would be differentiated according to the consequences of dangers or sanitary events on public health or on the economy of sectors involved; the principle being retained of a modulation of the degree of the State intervention according to a work of categorization of diseases - to be finalized[25]-.

This orientation falls under a constrained budgetary context of Member States and European Union, which implies to focus means and actions of official services on the sets of themes of public and general interest. The application of this principle to animal health and control against diseases will thus have to result in a concentration of means and actions of competent authorities of Member States and Commission only on animal diseases which concern general interest, either in the field of public health, because of their zoonotic character, or in the economic domain.

In parallel, the control of other diseases, which is of interest on a purely collective or individual basis for stockbreeders, without bearing a general interest for human health or for the breeding economic equilibrium, remains a challenge for professional sectors anxious to improve the quality and profitability of their livestock and livestock products.

The Commission, within the framework of the Community strategy of animal health[26], wants to lead its action on a categorization of threats related to animal diseases, based on scientific database and on risks evaluation.

In addition, a Community harmonization on a common base could prove to be necessary in the distribution of responsibilities and costs to guarantee the effectiveness and speed of the sanitary interventions, their proportionality and equity between recipients/beneficiaries (option 3a). Beyond this base, it would be advisable however to leave to Member States which wish it, pursuant to the principle of subsidiarity, the possibility of intervening on complementary devices. In this respect, option 5 appears too constraining to us.

On the contrary, in a constrained budgetary context for public finances and a difficult economic context for certain agricultural sectors, the Community disengagement induced by the options 4a or 4b (according to our interpretation, in spite of the brief character of the information relative to options) could lead to generate serious socio-economic difficulties for part of the agricultural world.

[25] The categorization of diseases must be related to the interest associated with diseases: general /public interest, collective interest, private interest.
[26] Cf communication of the above-mentioned Commission.

3. Judgement of the scenarios/options taking into consideration their effective and sparing nature

The wish expressed by the Community authorities to stress biosecurity and prevention of diseases, such as it arises from the current discussions on the revision of the animal health policy, must make possible to reinforce the efficiency of the system. At national level, in the same way, the General sanitary meeting allowed to underline the interest for professionals to begin in a biosecurity and prevention policy, in the objective of a reduction of occurrence of disease outbreaks.

4. Judgement of the scenarios/options in view with the simplicity and the clearness of the Community rules of co-financing of the reductions / losses of animal diseases

On the basis of France experiment in the requests for Community co-financing under the European Veterinary Funds, it could be desirable to determine with more precision in the Community decisions the costs or expenditures eligible to co-financing. This request aims to avoid the possible dissensions between Member States and the European commission on the calculation of the costs giving right to co-financing and on the amounts paid by the Commission departments. The shift between the sums awaited by Member States under co-financing and the really versed sums can, in certain cases, weaken financial resources and capacities of action of the Member State in terms of financing the (its) sanitary policy.

5. Judgement of the scenarios/options taking into consideration risk of distortion between Member States and areas

The best means of avoiding risks of distortion between Member States and areas of the European Community consists, without any doubt, in determining, at community level, an applicable groundwork in all Member States. This groundwork will have in particular to define the great rules relating to the Community co-financing in order to ensure equity between States (option 3a).

The objective which must be continued is to avoid any risk of financial support to a Member State which would not engage in an effective and scientifically recognized policy of control of risks as defined by the current Community strategy.

6. Judgement of the scenarios/options in respect to the minimization of risks for the national and Community budgets

The participation of professionals to the costs supported up to now by public authorities would mechanically cause to generate budgetary economies for the national and Community authorities, appreciable in a constrained budgetary context. However, it appears necessary to recall that a setting with too important contribution of professionals to this policy would be likely to cause serious difficulties in the management of sanitary / health hazards.

It is consequently advisable to determine a right balance between a durable and financially viable distribution of costs of the sanitary policy and a creditable objective of public expenditures control.

It appears in all the cases necessary to show measure to the nature and the calendar of the evolutions of the device / mechanism of community financing in order to obtain a progressive investment and an increased responsibility of stockbreeders in the fight against animal diseases, while avoiding a too brutal disengagement which would have as a perverse effect to lead to a fall of the sanitary level and thus in the long term a supplement of loads for the actors of the sanitary policy.

Lastly, for recall, professionals (FESSAS) clearly expressed their dissension on any public disengagement (in particular Community) at the time of major sanitary crises. Reacting to the new strategy of animal health for the European Union, they recommend urgently maintaining and reinforcing means allocated to the emergency veterinary funds.

7. Judgement of the scenarii/options with regards to the durability/sustainability of the agricultural trade within the European Union

The sustainability of the agricultural trade within the European Union supposes to preserve within the Community space, a good sanitary state of livestock and the most homogeneous possible, which supposes a strong and collective action of all actors of the sanitary policy for prevention, monitoring and control against diseases.

The evolution in the long term of the condition of exchanges of live animals aiming at a simplification of the current certification system can be considered only in this case.

As indicated previously, it is advisable to recall that any disengagement of public authorities in the sanitary policy (animal health) could have as an incidence a less control of health / sanitary hazards and possible difficulties for farmers to ensure the assumption of responsibility of the costs of this policy, in a delicate economic context for animal sectors (options 4a and 4b).

8. Judgement of the scenarii/options taking into consideration their coherence/conformity with the objectives of the Community policies, international engagements of the EU

The device of shared costs and responsibilities which will be retained will have to take into account the orientations taken at community level as for the revision of the device of animal health, on the basis of the work of revision of this mode, currently under discussion.

Comments/opinion on the open-ended questions (option 3A and 3B)

Questions 9 to 15, which refer to the options 3a and 3b of the questionnaire, cannot be the subject of an answer from the French authorities, taking into consideration the brief and incomplete nature of information delivered concerning the various options considered. Complements would be in particular necessary on the field of intervention of the "CRSS" (direct losses and/or indirect losses), the calendar and the methods of installation of this device/mechanism, the levels of compensation under consideration for the costs covered by this device, for the diseases covered by this mechanism.

We would be grateful if you could communicate us with specifications on these 2 options.

At this stage, and taking into account transmitted information, the option 3a appears nevertheless to approach more closely to the work carried out in France during and following the General sanitary meeting.

10. Germany

Minimum harmonisation of criteria

Only high contagious diseases should be covered. Compulsory participation of livestock farmers.

Differentiation in financial contributions between farmers and public. Maximum threshold for public funding should not be up to 50 %, but 50 %.

Peace-time support or co-financing losses in times of crisis

Losses in times of crisis, because even the best biosecurity system will not be able to prevent the introduction of highly contagious diseases on farms. The financial impact in times of crises for effectively combating animal diseases must be absorbed at least partially; a peace time support is not calculable.

Compensation for which losses

Only direct losses should be compensated.

Ways of EU support for direct losses

Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS. Compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator. Previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC (instead of the current compensation of real expenses).

Regarding compensation of indirect losses

Impossible to calculate indirect losses. Furthermore indirect losses are dependent on influencing factors of the individual farm, which the farmer best could manage and control according to his own risk management. Private insurance possibilities are existing, with which the public should not compete with. Compensation of indirect costs should only be implemented through voluntary private insurances.

Other ways of providing EU financial aid

No.

11. Greece

(No information received)

12. Hungary

(No information received)

13. Ireland

Minimum harmonisation of criteria

Harmonised criteria should include: categories of covered animal diseases/disease types, compulsory participation of livestock farmers, the objective of the CRSSs, a maximum threshold for public funding and WTO compliance.

Peace-time support or co-financing losses in times of crisis

Peace-time measures linked to Single Farm Payment & co-financing at time of crisis.

Compensation for which losses

No compensation of consequential losses.

Ways of EU support for direct losses

Some support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS and compensation for losses due to animals killed, as fixed percentage of the compensation paid to the operator.

Regarding compensation of indirect losses

Very difficult to determine & especially to audit compensation for consequential losses. Ireland is not in favour of this due to administrative difficulties.

Other ways of providing EU financial aid

No answer

14. Italy

Minimum harmonisation of criteria

Categories of covered animal diseases/disease types should certainly be harmonised, as well as the participation of livestock farmers (compulsory or voluntary). Further harmoniation of the objective of the CRSS, e.g. an efficient risk transfer from farmers to CRSS, support of on-farm risk management, differentiation in financial contributions between cost sharing actors and harmonisation of risks and losses (direct/consequential) that can be covered by the CRSS.

Peace-time support or co-financing losses in times of crisis

Both peace-time support and support in times of crises: the balance should be linked to the disease categorization.

Compensation for which losses

Compensation for both direct and consequential losses, depended on case-evaluation.

Ways of EU support for direct losses

Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS as well as compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator.

Regarding compensation of indirect losses

Indirect costs should be compensated, but a cost-efficient analysis of the measures necessary to do that should be performed. An effective Risk communication is important. Compensation of indirect costs could be implemented through subsidizing insurance premiums in order to balance the cost-responsibility between farmer and government.

Other ways of providing EU financial aid

No.

Final remarks

Option 3a could be the feasible scenario, but the Italian CVO strongly highlights that public support for direct cost of contagious animal disease is an indispensable tool for the success of eradication programmers.

15. Latvia

Minimum harmonisation of criteria

Criteria regarding CRSS conforming to option 3a and 3b that should at least be harmonised on EU-level are: voluntary participation of livestock farmers, efficient risk transfer from farmers to CRSS, maximum threshold for public funding of 80 %.

Peace-time support or co-financing losses in times of crisis

The more important financial contribution is in times of crises.

Compensation for which losses

Also compensation for consequential losses.

Ways of EU support for direct losses

Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS and compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator. Other losses will be difficult to establish.

Regarding compensation of indirect losses

These costs are difficult to determine and measure.

Often these costs are very high compared to the value of culled animals.

Other ways of providing EU financial aid

No answer

16. Lithuania

Minimum harmonisation of criteria

Criteria regarding CRSS conform option 3a and 3b that should at least be harmonised on EU-level are: previous list A diseases, compulsory participation of livestock farmers, the objectives of the CRSS, like efficient risk transfer from farmers to CRSS, support of on-farm risk management, differentiation in financial contributions between cost sharing actors, and WTO compliance.

Peace-time support or co-financing losses in times of crisis

No answer

Compensation for which losses

No compensation of consequential losses.

Ways of EU support for direct losses

Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS. Compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator. Previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC (instead of the current compensation of real expenses).

Regarding compensation of indirect losses

Other ways of providing EU financial aid

17. Luxembourg

Minimum harmonisation of criteria

No answer

Peace-time support or co-financing losses in times of crisis

Financing for preventive measures in peace-time is not in line with EU. This should be organized on MS-level. In time of crises, EU financing is correct to avoid the spread of animal diseases.

Compensation for which losses

EU-compensation only for direct losses. Consequential losses should be compensated for by the MS.

Ways of EU support for direct losses

Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS. Compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator.

Regarding compensation of indirect losses

Indirect losses are difficult to evaluate. The frequency and probability of indierct losses can only be estimated by rural economics.

Direct losses have to be compensated, to allow a new beginning of the activities.

Other ways of providing EU financial aid

[Questionnaire difficult to interpret]

18. Malta

(No information received)

19. Netherlands

Minimum harmonisation of criteria

Harmonization of covered diseases as well as the risks and losses covered (direct and/or consequential) is preferred, also from a level playing point of view. From our experience compulsory participation is needed in the commercial sector in order for our system to work. Setting a maximum to public funding (depending on how it is meant here) is risky with respect to effective disease control once the threshold is reached.

Peace-time support or co-financing losses in times of crisis

Both. Support of measures in peace time could and should support reduction of co-financing during crisis.

Compensation for which losses

In principal only compensation of direct losses, in order to avoid undesirable behaviour of farmers and avoid creating a precedent with other (non-agricultural) sectors.

Ways of EU support for direct losses

It's important to have clear criteria which are easy to work with and limit administration and control actions.

Regarding compensation of indirect losses

In principal only compensation of direct losses. There could, however, be situations in which compensation for consequential losses is justified, e.g. when compensating consequential losses might contribute to reducing the overall direct costs. However, it will be very difficult to reach a uniform estimation of the height of compensation among (and even within) member states.

Other ways of providing EU financial aid

Stimulating private initiatives to deal with (veterinary) risks in agriculture.

Final remarks

The Netherlands would be interested to have broader discussions on these issues with the Cie and other MS.

20. Poland

Minimum harmonisation of criteria

Categories of covered animal diseases/disease types should e harmonised. Voluntary participation of farmers in the 1st phase of introduction of CRSS, gradually becoming compulsory. The objective of the CRSSs should be: an efficient risk transfer from farmers to CRSS, support of on-farm risk management, differentiation in financial contributions between cost sharing actors, risks and losses (direct/consequential) that can be covered by the CRSS, maximum threshold for public funding. WTO compliance is a prerequisite.

Peace-time support or co-financing losses in times of crisis

The EU financial contribution to CRSSs should concern both ways of support. Peace-time support decreases the risk of a contagious disease occurrence in a MS (therefore reducing the cost born by that MS), while financing of losses in times of crisis ensures, that the actions connected with disease eradication are decisive, efficient and effective and that the disease shall be eradicated at the lowest possible cost.

Compensation for which losses

EU should only compensate for direct losses.

Ways of EU support for direct losses

EU support should concern compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator. This option is effectively exercised in this moment, and proved itself to be reliable and convenient

Regarding compensation of indirect losses

Introduction of compensation of indirect losses would be very difficult and at this stage - unfeasible. The main concern would be the lack of possibility of calculating in an accurate way the indirect costs, which would force to using (probably very complicated) counting algorithms, which would in turn be based on mean values harmonized on EU level (and therefore not accurate for some MS) or accurate only for an individual MS (and therefore not harmonized between MS). Introducing compensation of indirect losses could also lead to financial abuses and possible fraud that would be hard to detect. Consequently the administrative burden caused by the obligation to control proper implementation of indirect costs compensation, could lead to the necessity of establishing a completely new authority.

Other ways of providing EU financial aid

The current rules are a good basis for developing new ones, but - as the option 3b is also very interesting and beneficial for the EU as a whole - we could take into consideration an option that combines the above mentioned ones - establishing the possibility for individual MS to develop CRSS provided that these schemes comply with EU harmonized criteria while allowing others to choose the option of getting EU co-financing according to the harmonized rules developed on the basis of the current rules.

21. Portugal

Minimum harmonisation of criteria

Criteria regarding CRSS conform option 3a and 3b that should at least be harmonised on EU-level are: categories of covered animal diseases/disease types, participation of livestock farmers: compulsory or voluntary, the objective of the CRSSs, like efficient risk transfer from farmers to CRSS, support of on-farm risk management, differentiation in financial contributions between cost sharing actors, risks and losses (direct/consequential) that can be covered by the CRSS and maximum threshold for public funding.

Peace-time support or co-financing losses in times of crisis

Both in peace-time and time of crisis.

Compensation for which losses

Also compensation of consequential losses.

Ways of EU support for direct losses

Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS and compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator. No previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC (instead of the current compensation of real expenses).

Regarding compensation of indirect losses

Assessment of these losses is possible.

Prevention of moral hazards by means of an epidemiological inquiry. Approximate values of frequency and probability of indirect losses can be calculated. The payment of indirect losses may help disease eradication, but they have a high cost/benefit. It could be implemented with clear criteria established.

Other ways of providing EU financial aid

Yes, option 2 (EU-cofinancing rules are maintained, with maximum public contribution).

Final remarks

Questionnaire difficult to understand.

22. Romania

Minimum harmonisation of criteria

Criteria regarding CRSS conform option 3a and 3b that should at least be harmonised on EU-level are: categories of covered animal diseases/disease types (Zoonosis and diseases with high diffusivity), voluntary participation of livestock farmers and the objective of the CRSSs (support of on-farm risk management).

Peace-time support or co-financing losses in times of crisis

Peacetime contribution to reduce risk during the crisis.

Compensation for which losses

Compensation only for direct losses.

Ways of EU support for direct losses

Important to support prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS.

Regarding compensation of indirect losses

It will not be possible to determine all real costs.

Other ways of providing EU financial aid

Maybe a different plan for the animals with a great compensation economic value.

Final remarks

I think the environmental impact has not been sufficiently achieved in this feasibility study.

23. Slovakia

Minimum harmonisation of criteria

Criteria regarding CRSS conform option 3a and 3b that should at least be harmonised on EU-level are: categories of covered animal diseases/disease types, participation of livestock farmers: compulsory or voluntary, the objective of the CRSSs, e.g. efficient risk transfer from farmers to CRSS, support of on-farm risk management, differentiation in financial contributions between cost sharing actors, risks and losses (direct/consequential) that can be covered by the CRSS.

Peace-time support or co-financing losses in times of crisis

Support to prevention and surveillance programmes and co-financing of losses in times of crisis are equally important.

Compensation for which losses

Only compensation of direct losses.

Ways of EU support for direct losses

Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS; compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator; previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC.

Regarding compensation of indirect losses

Losses are very difficult determinable (different types of farming, technologies that affect the cost and loss). Guarantees by veterinary control and ensuring compliance with the conditions.

The frequency and probability of indirect losses can probably not be calculated.

Indirect losses are difficult to determine and difficult to prove. It is necessary to ensure the prevention.

Other ways of providing EU financial aid

No answer

24. Slovenia

Minimum harmonisation of criteria

Criteria regarding CRSS conform option 3a and 3b that should at least be harmonised on EU-level are: categorisation and prioritisation of diseases, compulsory participation and definition of participating stakeholder, introduction of more preventive-driven policy; well-known and well-defined responsibilities and behaviour of all the stakeholders strictly in line therewith, which impacts for also the on-farm risk management; the objective is to define the roles and respective contributions of particular stakeholders; in CRSS, the direct, as well as indirect/ consequential losses shall be included, as well as preventive measures.

Peace-time support or co-financing losses in times of crisis

EU co-financing should comprise the times of crisis as well as peace time.

Compensation for which losses

For minor MSs and minor economies, the consequential losses are much worse (ensuring and maintaining the competitive edge).

Ways of EU support for direct losses

a) Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS and b) compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator.

Regarding compensation of indirect losses

Considering the previous business operations and data, as for instance, if a farmer situated in the endangered zone would dispatch animals for slaughter (also to the other MSs) – where there applies the ban on trade – the loss is not committed intentionally, and it is within the range of the ban.

Other ways of providing EU financial aid

No answer

25. Spain

Minimum harmonisation of criteria

criteria regarding CRSS conform option 3a and 3b THAT should at least be harmonised on EU-level are: categories of covered animal diseases/disease types, participation of livestock farmers: compulsory or voluntary, efficient risk transfer from farmers to CRSS, support of on-farm risk management, differentiation in financial contributions between cost sharing actors, risks and losses (direct/consequential) that can be covered by the CRSS, maximum threshold for public funding.

Peace-time support or co-financing losses in times of crisis

Both options are right. Peace time support will enhance prevention and support in time of crisis will allow control and eradication.

Compensation for which losses

Both losses should be compensated.

Ways of EU support for direct losses

Preferred ways of support: support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS, compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator, previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC (instead of the current compensation of real expenses). These rates could be established considering previous experience.

Regarding compensation of indirect losses

It is feasible to determine and measure indirect losses. Valuation and joint research between the government and technical valuation of insurance companies can give certain guarantees. In addition, advances in epidemiology, diagnostics and traceability allowing greater ability to detect moral hazards. The frequency and probability of indirect losses can be calculated. The Spanish Agricultural Insurance System has been performed by actuarial and advances in predictive epidemiology. For eradication and prevention of animal diseases, collaboration of farmers is essential. Indirect losses sometimes can be more serious than the direct.

It could be implemented through a system of subsidizing insurance premiums, so that responsibility is distributed between the farmer and the administration.

Other ways of providing EU financial aid

No answer

26. Sweden

Minimum harmonisation of criteria

Criteria regarding CRSS conform option 3a and 3b that should at least be harmonised on EU-level are the following. Harmonized categorization of diseases should be a basis for decisions on EU financing. Furthermore It should be discussed whether on a Member State or regional level other diseases could be included, for example in connection with ongoing control schemes as agreed with farmer s' organizations. Furthermore, the most effective and efficient system would probably be if all farmers were included and were obliged to pay to the system. Farmers could also have the option to choose a higher level of biosecurity than the legal basis and this should entitle them to a reduction of the fee. Such additional biosecurity schemes must be designed to be transparent and cost-effective, taking into account the need for controls. The goal is to reduce the total risk by increasing the biosecurity and the CRSS is a tool to produce economic incentives for the farmer without putting the whole risk directly on the individual farmer. Support of on-farm risk management, e.g. training in biosecurity Differentiation in financial contributions between cost sharing actors can be discussed. Also maximum threshold for public funding and WTO compliance.

Peace-time support or co-financing losses in times of crisis

Peace time support to creation of CRSS: biosecurity training, surveillance is preferable as it aims at reducing the risk not paying for risks taken.

Compensation for which losses

Only compensation for direct losses.

Ways of EU support for direct losses

Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS is important (but is this a direct loss?)

Regarding compensation of indirect losses

EU should not pay indirect losses. A CRSS could pay some indirect losses as for example parts of production losses.

Other ways of providing EU financial aid

Certain measures can be paid in Member States neighbouring a high risk third country. e.g. extra monitoring for FMD or vaccination of wild animals against rabies.

27. United Kingdom

Minimum harmonisation of criteria

TB surveillance and control program is compulsory. Support of on-farm risk management is important.

Peace-time support or co-financing losses in times of crisis

Peace-time support is not so relevant for TB (UK).

Should the EU decide to bring forward proposals which would require farmers to bear some of the costs associated with direct losses (either through defining a maximum percentage of public financial contribution or requiring the compulsory introduction of cost sharing schemes in Member States), then it would be important that such proposals would be brought forward gradually so as to lessen the impact on NI farmers and to allow time for insurance companies to re-evaluate the cover they provide (Northern Ireland).

Compensation for which losses

The Scottish Government supports the legitimate use of CAP funds for the promotion of animal health and animal disease prevention to reduce the risks of notifiable disease and to support the public goods associated with high health status, e.g. the mitigation of environmental impact of livestock production through improved efficiency.

There will also be a need to ensure that NI farmers, and the local livestock and livestock products sector, are not disadvantaged vis-a-vis farmers in the Republic of Ireland, possibly as a result of the UK opting for a least cost to the public purse option in the scenario that each member State can opt for its own system (Northern Ireland).

Only direct losses should be compensated for (Welsh Assembly Government).

Ways of EU support for direct losses

Compensation needs to be set at an appropriate level to encourage the prompt reporting of disease and farmer cooperation with control programmes and on biosecurity. It is accepted that, transferring an increasing proportion of the cost of disease control from the taxpayer to the primary producer, would be likely to have a beneficial effect in terms of encouraging greater attention to biosecurity (Northern Ireland).

For TB, there is already support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS (United Kingdom). Also, compensation for losses due to animals killed as *fixed percentage* of the compensation paid to the operator is already the current situation for TB (United Kingdom)

Regarding compensation of indirect losses

The UK government does not compensate for indirect losses. Generally, the UK government does not think compensation is a pragmatic option, the government is concerned about the level of complexity any scheme wanting to do this, will have. The UK government believes it would be prohibitably expensive. The UK government considers it to be very difficult to decide what things should be compensated for i.e. the difficulty in operating it.

Other ways of providing EU financial aid

No.

Final remarks

TB is fundamentally different from the diseases that this questionnaire appears to be targeted at, it is not about emergency response but a long-term eradication programme. That is not to say that there is not read across in terms of support for enhanced on-farm biosecurity et cetera (United Kingdom).

In order to enable livestock keepers in epidemiologically distinct sectors or regions to act collectively to prevent disease incursions, there should be greater possibilities to implement external biosecurity within the framework of the single market. And for the cost of these measures to be passed to relevant actors that, through their activities, present a higher risk to the sector as a whole, such as traders in live animals (Scottish Government)

Additional remarks by the respondents

Some additional remarks given by the respondents concerning a further detailing of certain questions are gathered below:

What kind of preventive measures do you have in mind in relation with contagious animal disease and how should these be part of a CRSS? (AI, FMD, CSF)?

- (Finland)The main preventive measures are minimizing trade in live animals and taking general biosecurity measures to protect the animals from infection through visitors, equipment, feed, water or contact with wild animals. The best way to link such measures to a CRSS would be to *classify holdings* in accordance with their risk status and introduce lower insurance or other contributions for holdings with a better status, but the system needs to be simple to be manageable. A second option is to level the compensation in accordance with the risk status.
- (UK) For TB there are the two main sources of infection, through cattle and badgers. Differing approaches are needed to militate against the different disease pathways, but biosecurity plays an important part in minimizing the risks of disease spread. The current option does not incentivise this approach, since it deals with direct costs.

- We need a system that rewards good behaviour and penalizes bad behaviour (Welsh Assembly Government)
- (IT) Improve identification and registration of animals; effective notification of animal disease; support biosecurity measures at farm level.
- (DE) Biosecurity, monitoring, information of stakeholders, training.
- (PL) a) Funding from public money of programmes for animal disease control, eradication and surveillance; b) Veterinary border inspection; c) Requirements for movements of animals; c) Requirements for biosecurity; e) Possible vaccination of animals - vaccination against major animal diseases should be funded from public money, vaccination against other diseases should be financed by the farmer (the proportion of public and private funds would be dependent on disease categorisation); f) Granting funds for investments in biosecurity infrastructure (but not for maintaining biosecurity).
- (BE) Implementation by the farmers of hygiene and biosecurity measures on farm level; good farming management practices (e.g. reduced purchase policy and reduced number of origins of animals and products). In peace time, but also in periods of epizootic disease and restrictive measures, there should be a good cooperation and communication between farmer's organizations and the authorities and responsible behaviour of individual farmers as members of the farmer's organization. The financial consequences of an epizootic have direct consequences on the farmer's contributions; therefore a swift and a successful result of the animal disease control measures have a direct positive impact.

What kind of incentives will enforce farmers to fully participate in the prevention control in relation contagious animal disease?

- (Fin) Financial incentives (financial support for biosecurity through the CAP and/or better compensation or lower fees for farms with good biosecurity). Administrative incentives (less controls and/or access to market).
- (IT) Incentives system linked to the level of biosecurity measures application (less compensation or support for farmers that not/bad apply biosecurity measures). Penalties for Countries who not/bad implement the identification and registration of animals or notification of animal diseases.
- (DE) Full compensation of direct losses if certain (preventive) prerequisites are fulfilled by the farmer. Proportionate financial aid on preventive measures.
- (PL) a) Granting funds for investments biosecurity infrastructure; b) Compensation of vaccination; c) Once the CRSSs are introduced an option to compensate up to 100% (instead of a lower value, which would be the result of the CRSS), of costs born due to disease eradication if the farmer complies with high biosecurity standards.

- (BE) A swift and adequate compensation, differentiated where possible according to rapid notification [in case of rapid notification the number of dead animals will be lower (e.g. CSF: healthy: 100% , clinical illness: 50%, dead pigs: 0% compensation]. The administrative burden to obtain compensation should be minimized, which is a strong incentive for the farmers.
- The full compliance with hygiene and biosecurity measures, good farming practices and low risk behaviour should result in lower levies imposed on the farmers. Other incentives in case of disease outbreak are a good and clear communication and reminder of the risks on farm level, regional, national and international level.

What kind of costs need to be covered and what is an 'adequate' compensation?

- (Fin) Farmers already bear a considerable part of the losses, since there are far more losses in relation to a disease outbreak than can ever be compensated (extra work, loss of valuable breeding animals, interrupted production etc). When clinically healthy animals are culled by the authorities to prevent disease spread, it is only reasonable that the individual farmer gets compensation. The question is whether that compensation should come from public money or from the industry of farming community, which are the main beneficiaries. The compensation should at least cover the value of the culled animals (if clinically healthy) and cost of cleaning and disinfection. It is also reasonable to compensate costs for business interruption, at least partly.
- (UK) The costs to be covered should only concern direct losses such as the value of the animal slaughtered. Consequential losses should not be covered, nor should repopulation costs.
- (IT) Public support for direct cost is essential in case of contagious diseases such as FMD. The farmers' participation should be linked to a specific categorization of animal diseases.
- (DE) Farmers should be participating on the costs of the system, either by levies or by other financial contribution. The following costs should be covered: adequate compensation of killed animals, costs for destruction of the animals and rendering, cleansing and disinfection.
- (PL) In our view, all costs born due to major disease eradication should be financed from public funds. If our concept changes over years, we will have an option to switch to the CRSS, yet we will need to develop the criteria for listing the costs that need to be covered by the farmers in the framework of the CRSS.
- (BE) The compensation level of the current Belgian system differs according to the disease

Epizootic diseases: FMD, CSF: 100% (with restrictions for healthy (100%), clinically illness (50%) or dead animals 0%)); Enzootic diseases: Tuberculosis, brucellosis, leucosis 80-85 %; Special cases with important public health risk: TSE, Rabies: 100% Poultry diseases: 70 % (Newcastle disease and Salmonella); except for AI : 90 %

The value of an individual animal should not exceed a certain maximum: Valuable animals: standard compensation, value above the standard level is the individual risk/responsibility of the owner. Costs to be covered:

Direct losses: yes ; Compensation for culled animals, destroyed products (eggs, milk, sperm, feed,); Operational costs: Culling costs,(killing, transport) , cleansing and disinfection costs and pest control in case of epizootic diseases; Monitoring costs on farm level in order to lift restriction measures in the zone(s); Emergency vaccination costs : yes. Indirect losses: in Belgium: competence of the regions. In the past there has been no compensation for indirect losses, except in some circumstances where an ad hoc EU regulated framework had been adopted.

What should a balance in distribution of costs and responsibilities look like?

- (Finland) This question must consider three things: 1) what is the added value of having EU funding? 2) Why is there a need to regulate cost-sharing in Member States? And 3) must the balance between the public and private sector be the same in all Member States?
- It could be argued that EU funding is mainly needed in catastrophic events when individual Member State funds may not be sufficient. Otherwise using MS funds instead of EU funds could reduce overall administrative costs resulting in overall savings for the European taxpayer. As regards the regulation of cost-sharing within Member States it is mainly a competition issue, which also could be addressed through the state aid rules. And finally, since there are large differences in the structure and development of the animal production sector in various Member States, it may not be feasible to envisage the same balance between the private and public sector throughout the EU.
- (UK) All options provide some degree of division of responsibilities and costs. 3a or 5 offer the best chance of a balance across industry, public and private sector – but – option 5 may be too complex to implement effectively. Extremely difficult to define without much more rigorous analysis. All options allow for costs to be shared.
- (Welsh) The industry needs to take a greater proportion of risks.
- (IT) The identification of evaluating criteria is crucial to assess objectively the responsibility of farmers. The difficulty lies in the dynamism of epidemiology, so should be planned a system linked to the disease's categorization and capable of adapting to new situations in a simple and feasible way
- (DE) Everybody being involved in the system should bear financial responsibility according to their responsibilities (EU, national authorities and farmer).
- (PL) Regarding the costs of the major diseases eradication, farmers should not be burdened with those costs (or they should be as small as possible). In consequence - even if the MS budget is

burdened with all of the costs (which would be co-financed from the EU budget), we believe that the costs are distributed in a balanced way.

- (BE) In case of direct losses, operational costs should be financed by a budget of public origin. Other direct costs, such as compensation and emergency vaccination, should at least for a certain percentage be financed with a budget of private origin. Costs concerning direct losses in minor species sectors (equidae, aquaculture, rabbits, bees) should continue to be covered by a budget of public origin.

APPENDIX 4: RESPONSE OF COPA COGECA

a. only direct losses?
b. also consequential losses like business interruptions?

Yes, also consequential losses should be compensated: business interruptions, marketing problems due to emergency vaccination, losses for farms located in the restriction zones, etc.

12. If direct losses will be financial compensated by the EU, what ways of support would you prefer and why? For instance:
a. Support to prevention and surveillance programmes, e.g. on basis of livestock numbers covered by the CRSS?
b. Compensation for losses due to animals killed as fixed percentage of the compensation paid to the operator?
c. Previously agreed flat rates for all other losses of operators that are currently financed under Council Decision 2009/470/EC (instead of the current compensation of real expenses)? How to establish these rates?
d. Other ways of EU support?

As a general comment, all costs borne by the farmer to get back in business should be covered. Some examples of support can be:

- Payment per animal lost at current market prices;
- Payment per kg/l/number of production lost (meat, milk, eggs, animals, etc.) at current market prices, or compensation for price drops;
- Per diem payments for income lost during the time of business operation;
- Costs of cleaning, disinfections, vet, etc.;
- Replacement of feed, manure, straw bedding, etc., and farm equipment destroyed during the outbreak;
- Costs of restocking (getting used to new breeds, etc.);
- Cost of monitoring and surveillance measures, as well as costs of biosecurity measures in place.
  It should be considered that these costs could also be incurred outside of protection/surveillance zones.

13. Regarding EU compensation of indirect losses:

a. Is it feasible to do this? Are these losses determinable and measurable?
Yes, prices are widely monitored, available and can be determined by neutral bodies.

b. How to guarantee losses are accidental and unintentional? How to prevent moral hazards?
They could be prevented by making all actors financially responsible for disease prevention and control. This should include the processing industry, dairies, slaughterhouses, retail, animal traders, veterinary practitioners, etc,but also operators outside of agriculture, such as tourism business and nature reserve organisations.

c. Can the frequency and probability of indirect losses be calculated?
It is difficult, but it could be estimated. Certainly there are scientific reports available that could serve as a basis.

APPENDIX 5: EVALUATION OF THE DIFFERENT POLICY OPTIONS BY EU MS, ISSG AND COPA COGECA

Table A5.1: Evaluation of the different policy options by EU MS, ISSG and Copa Cogeca

	Option 1 'no change scenario'				Option 2 'EU co-financing rules maintained with maximum public %'				Option 3a 'EU harmonised frame-work CRSS with gradual introduction'				Option 3b 'EU harmonised frame-work CRSS' or 'no change'				Option 4a 'Deregulation to catastrophic events'				Option 4b 'Deregulation with lump sum payment'				Option 5 'Fully harmonised CRSS managed by EC'			
	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+
1. Does the option support a more prevention-driven and incentive-oriented approach of the EU financial aid for disease control and eradication?																												
MS	**1.4**	10	7	0	**2.1**	2	11	3	**2.6**	1	4	12	**2.0**	3	11	3	**1.2**	14	2	1	**1.5**	9	7	1	**2.3**	3	6	8
ISSG	**1.4**	5	4	0	**2.0**	2	4	2	**2.9**	0	1	8	**2.1**	1	6	2	**2.0**	3	2	3	**1.9**	4	1	3	**2.9**	0	1	8
Copa	**±**				**±**				**+**				**-**				**-**				**-**				**±**			
a. Does it encourage strengthening of the bio-security on the farm (basic hygiene, prevention) ?																												
MS	**1.5**	8	6	1	**2**	5	5	5	**2.5**	1	5	9	**2.1**	1	12	2	**1.4**	10	4	1	**1.3**	11	3	1	**2.3**	2	7	6
ISSG	**1.5**	5	5	0	**1.9**	3	4	2	**2.7**	0	3	6	**2.4**	0	5	3	**2**	4	1	4	**1.8**	5	1	3	**2.5**	1	3	6
Copa	**-**				**-**				**+**				**±**				**-(±)**				**-(±)**				**±**			
b. Do farmers bear an adequate part of the losses due to contagious animal diseases?																												

MS	**1.6**	5	7	0	**2.1**	1	10	2	**2.5**	0	7	6	**2.1**	2	8	3	**1.8**	6	4	3	**1.7**	6	5	2	**2.5**	0	7	6
ISSG	**2**	3	4	3	**2.6**	0	4	6	**2.8**	0	2	8	**2.2**	1	5	3	**1.6**	6	1	2	**1.5**	4	4	0	**2.8**	0	2	8
Copa	**±**				**±**				**+**				**±**				**±**				**±**				**±**			
2. Does the option provide in a balance of the distribution of costs and responsibilities between EU institutions, national authorities and the farming sector?																												
MS	**1.5**	9	6	1	**1.9**	4	9	3	**2.8**	0	3	12	**2.1**	2	10	3	**1.3**	13	2	1	**1.5**	8	7	0	**2.5**	1	5	9
ISSG	**2.1**	2	4	3	**2.7**	0	3	6	**2.7**	0	3	6	**2.5**	1	2	5	**1**	7	0	0	**1.4**	5	1	1	**2.6**	2	0	7
Copa	**-**				**-**				**+**				**±**				**-**				**-**				**±**			
a. Does it stimulate the development of consultation mechanisms and common approaches by the cost sharing actors in times of crisis?																												
MS	**1.5**	8	7	0	**2.0**	1	13	1	**2.6**	1	4	10	**2.2**	1	10	4	**1.7**	5	9	1	**1.8**	4	10	1	**2.7**	1	3	11
ISSG	**1.8**	4	4	2	**2.0**	4	2	4	**2.7**	0	3	7	**2.3**	1	4	4	**1.6**	5	1	2	**1.4**	6	1	1	**2.6**	1	2	7
Copa	**-**				**-**				**+**				**±**				**-**				**-**				**+**			

Table A5.1: Evaluation of the different policy options by EU MS, ISSG and Copa Cogeca (continued)

	Option 1 'no change scenario'				Option 2 'EU co-financing rules maintained with maximum public %'				Option 3a 'EU harmonised frame-work CRSS with gradual introduction'				Option 3b 'EU harmonised frame-work CRSS' or 'no change'				Option 4a 'Deregulation to catastrophic events'				Option 4b 'Deregulation with lump sum payment'				Option 5 'Fully harmonised CRSS managed by EC'			
	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+
3. How effective and efficient is the option:																												
a. with respect to prevention of animal diseases?																												
MS	**1.6**	7	7	1	**2.2**	1	10	4	**2.9**	0	2	13	**2.3**	1	8	5	**1.5**	10	3	2	**1.5**	8	6	1	**2.2**	1	10	4
ISSG	**1.8**	2	8	0	**2.2**	1	6	3	**2.6**	0	4	5	**2.4**	0	5	3	**2**	4	1	4	**2**	4	1	4	**2.8**	0	2	8
Copa	**±**				**±**				**+**				**±**				**±**				**-**				**±**			
b. with respect to eradication of animal diseases?																												
MS	**2.1**	2	9	4	**2.5**	0	8	7	**2.6**	0	6	9	**2.4**	1	6	7	**1.7**	7	5	3	**1.3**	10	5	0	**2.4**	1	7	7
ISSG	**2.3**	3	1	6	**2.2**	2	3	4	**2.8**	0	2	7	**2.5**	0	4	4	**1.4**	5	1	1	**1.3**	7	1	1	**2.9**	0	1	8
Copa	**-**				**-**				**+**				**±**				**-**				**-**				**±**			
c. with respect to encouraging preventive behaviour?																												
MS	**1.5**	9	5	1	**2.0**	4	7	4	**2.7**	0	4	11	**2.2**	1	9	4	**1.5**	9	4	2	**1.7**	6	8	1	**2.5**	1	5	9
ISSG	**1.7**	3	6	0	**1.8**	2	7	0	**2.8**	0	2	7	**2.5**	0	4	4	**2.1**	3	1	4	**2.1**	3	0	4	**2.8**	0	2	7
Copa	**±**				**±**				**+**				**±**				**±**				**±**				**+**			

d. with respect to early reporting of disease outbreaks?																											
MS	**1.9**	5	5	4	**2.1**	5	4	6	**2.7**	0	4	11	**2.4**	1	7	6	**1.7**	6	8	1	**1.5**	9	4	2	**2.6**	1	4	10
ISSG	**2.4**	1	3	5	**2.2**	2	4	4	**2.6**	0	4	6	**2.2**	1	5	3	**1.3**	7	1	1	**1.3**	7	1	1	**2.7**	0	3	7
Copa	**-**				**-**				**+**				**±**				**-**				**-**				**±**			
e. with respect to the implementation of flexible Costs and Responsibility Sharing Schemes at national or regional level?																											
MS	**1.6**	7	6	1	**1.9**	4	7	3	**2.7**	0	4	9	**2.3**	1	8	5	**1.7**	7	4	3	**1.7**	6	6	2	**2.4**	2	4	8
ISSG	**1.9**	3	5	2	**2.1**	2	5	3	**2.5**	1	3	6	**1.9**	1	8	0	**1.8**	5	1	3	**1.9**	4	2	3	**2.1**	4	1	5
Copa	**-**				**-**				**+**				**±**				**-**				**-**				**+**			

Table A5.1: Evaluation of the different policy options by EU MS, ISSG and Copa Cogeca (continued)

	Option 1 'no change scenario'				Option 2 'EU co-financing rules maintained with maximum public %'				Option 3a 'EU harmonised frame-work CRSS with gradual introduction'				Option 3b 'EU harmonised frame-work CRSS' or 'no change'				Option 4a 'Deregulation to catastrophic events'				Option 4b 'Deregulation with lump sum payment'				Option 5 'Fully harmonised CRSS managed by EC'			
	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+	Av	-	±	+
4. Will the option provide in simple and clear rules for EU co-financing of losses due to animal diseases?																												
MS	**2.1**	3	8	4	**2.6**	1	4	9	**2.6**	0	6	8	**2.0**	2	10	2	**2.0**	5	3	5	**2.1**	6	2	7	**2.4**	1	6	7
ISSG	**2.3**	2	2	4	**2.4**	1	3	4	**1.9**	3	3	2	**1.3**	5	2	0	**2.4**	1	2	4	**2.7**	1	0	6	**2.0**	3	1	3
Copa	**-**				**-**				**+**				**±**				**-**				**-**				**+**			
a. Will the option ensure consistency in and coherence with the several MS compensation mechanisms within the EU?																												
MS	**2.1**	3	5	4	**2.5**	1	4	6	**2.5**	0	5	6	**1.9**	3	6	2	**1.2**	9	2	0	**1.4**	8	3	1	**2.5**	1	4	6
ISSG	**1.9**	3	4	2	**2.2**	2	3	4	**2.3**	3	0	5	**1.4**	5	1	1	**1.3**	5	2	0	**1.7**	4	1	2	**3.0**	0	0	9
Copa	**-**				**-**				**+**				**-**				**-**				**-**				**+**			
5. Does the option prevent distortion of competition among Member States and/or regions?																												
MS	**1.7**	5	6	1	**1.9**	5	4	4	**2.1**	2	8	3	**1.7**	5	6	1	**1.4**	8	5	0	**1.3**	9	4	0	**2.2**	4	3	6
ISSG	**1.9**	3	5	2	**2**	2	6	2	**2.2**	3	2	5	**1.7**	3	6	0	**1.6**	6	1	2	**1.7**	6	0	3	**2.6**	2	0	8
Copa	**-**				**±**				**+**				**-**				**-**				**-**				**+**			
6. Does the option minimize risks for the EU and MS budgets?																												

MS	**1.5**	8	8	0	**2.3**	2	7	7	**2.6**	0	6	10	**2**	2	11	2	**1.7**	9	3	4	**1.8**	8	4	4	**2.3**	3	5	8
ISSG	**1.5**	4	4	0	**2.5**	1	2	5	**2.6**	0	3	5	**2**	0	7	0	**2**	3	2	3	**2.6**	1	1	6	**2.6**	0	3	5
Copa	-				±				+				-				±				±				±			
a. Does it provide in proportionate thresholds for public resources linked to for instance the disease categorisation or other criteria?																												
MS	**1.8**	3	5	1	**2.1**	2	4	3	**2.7**	0	3	6	**2.2**	2	3	4	**1.7**	4	4	1	**1.7**	4	4	1	**2.4**	1	3	5
ISSG	**2.2**	1	6	3	**2.6**	0	4	5	**2.7**	1	1	8	**2.1**	2	4	3	**1.3**	7	0	1	**1.1**	8	1	0	**3**	0	0	10
Copa	-				-				+				-				-				-				+			
b. Does it ensure long term stable financing for disease control?																												
MS	**1.9**	5	8	3	**2.3**	1	10	5	**2.8**	0	4	12	**2.3**	2	8	6	**1.4**	9	7	0	**1.4**	10	6	0	**2.8**	0	3	13
ISSG	**2**	3	4	3	**2.2**	1	6	3	**2.6**	1	2	7	**2.1**	1	6	2	**1.6**	5	3	1	**1.9**	4	2	3	**2.5**	0	5	5
Copa	-				±				+				-				-				±				±			

APPENDIX 6: EXAMPLES PEST-ELEMENTS

Examples of PEST analysis [27] of opportunities and threats in the environment on macro level:

Political:

- Government type and stability.
- Freedom of press, rule of law and levels of bureaucracy and corruption.
- Regulation and de-regulation trends.
- Social and employment legislation.
- Tax policy, and trade and tariff controls.
- Environmental and consumer-protection legislation.
- Likely changes in the political environment.

Economic:

- Stage of business cycle.
- Current and projected economic growth, inflation and interest rates.
- Unemployment and labour supply.
- Labour costs.
- Levels of disposable income and income distribution.
- Impact of globalization.
- Likely impact of technological or other change on the economy.
- Likely changes in the economic environment.

Socio-Cultural:

- Population growth rate and age profile.
- Population health, education and social mobility, and attitudes to these.
- Population employment patterns, job market freedom and attitudes to work.
- Press attitudes, public opinion, social attitudes and social taboos.
- Lifestyle choices and attitudes to these.
- Socio-cultural changes.

[27] (http://www.mindtools.com/pages/article/newTMC_09.htm)

Technological Environment:

- Impact of emerging technologies.
- Impact of Internet, reduction in communications costs and increased remote working.
- Research and development activity.
- Impact of technology transfer.

Table A6.1: Effect of different forces on the feasibility of different policy options

POLITICAL FORCES	Option 1	Option 2	Option 3A	Option 3B	Option 4A	Option 4B	Option 5
	No change	EU co-financing with max % public contribu-tion	EU har-moni-sed CRSS gradual introduc-tion	EU har-moni-sed CRSS or 'No change	Deregula-tion – catastro-phic events	Deregula-tion- lump sum pay-ment	Fully har-moni-sed CRSS managed by EC
EU Principles of proportionality and subsidiarity in all new legis-lation	↓	↓	↑	-	-	-	↓
EU Polluter-pays principle	↓	-	↑	-	↓	-	↑
EU Tendency towards European Models of Agriculture Sustain-ability (PPP)	↓	-	↑	-	↓	↓	↑
EU tendency: first prospective studies towards a risk partner-ship between agricultural busi-ness, the insurance companies and the government.	↓	↑	↑	-	↓	↓	↑
Individual interests:							
Category 1 MS*	-	↑	-	↑	↑	↓	-
Category 2 MS	↓	↓	↑	↓	↓	↑	-
Category 3 MS	↓	↓	-	↓	↓	↑	↓
ECONOMIC FORCES							
Increasing competition from third country imports (e.g. milk)	-	↓	↓	-	↓	-	↓
Increasing production costs EU farmers due to: *** increasing societal demands and associated legislation** *** Limited willingness-to-pay by**	↑	↓	↓	-	↓	-	↓

consumer for extra costs connected with extra societal demands *** fall in direct public payments (CAP)**							
Competitive pressure to increase profitability (market strategies towards more high added-value products)	↓	-	↑	-	↓	-	↑
Tendency towards large scale farming	-	-	↑	-	-	-	↑
SOCIAL/CULTURAL FORCES							
Increasing societal demands in various fields (food safety, animal health, welfare et c)	↓	-	↑	-	↓	-	↑
Increasing social unrest by large scale killings in case of notifiable diseases	↓	-	↑	-	↓	-	↑
Different production cultures in MS: backyard farming in new MS with sparsely populated livestock areas	↑	-	↓	-	-	-	↓
Different production cultures in MS: backyard farming in new MS with sparsely populated livestock areas **Farmers demand: also *responsibility* sharing in policies towards animal disease problem solving**	↑ ↓	- -	↓ ↑	- -	- ↓	- ↓	↓ ↑
TECHNICAL FORCES							
Climate change in relation with emerging diseases (animals as a vector to humans)	↓	-	↑	-	↓	-	↑
Increasing availability of diagnostic and monitoring tools	↑	↑	↑	↑	↑	↑	↑
Increasing availability of diagnostic and monitoring tools **Increasing development and availability of supporting quality insurance schemes for animal production**	↑ -	↑ ↑	↑ ↑	↑ -	↑ -	↑ -	↑ ↑

- (↑ = in line with / upward pressure); ↓ = not in line with / downward pressure; - = neutral;/ upward or downward pressure)

- * Category 1 = MS with densely populated livestock areas; Category 2 = Old MS with mainly medium or sparsely populated livestock areas; Category 3 = New MS with mainly medium or sparsely populated livestock areas.

To use in SWOT: take advantage of the opportunities and minimize the threats.

Table A6.2: Identified PEST forces and related opportunities/threats in relation to option 3a.

Political forces	Related threats and opportunities for OPTION 3A
a. Principles of proportionality and subsidiary in all new legislation reflected by all Commission legislative proposals for approval in the Council.	T: Harmonization could be hampered by individual MS interests or specific measure downsized O: To establish a flexible system adapted to MS needs
b. Simplification and deregulation reflected in implementing rules	O: If there really is a reduction of Administrative burden in enforcement, it should help the sector and MS in applying a harmonized system T: But, this option might also imply more regulation at EU level and more administrative burden T: Public acceptability of option 3a. On the other side, recent economic crises has raised questions on how private parties manage risks, if there are not appropriate controls from public authorities. Farmers will have a "say" on the measures to be taken for controlling outbreaks (vaccination, culling) T: Risks of poor implementation and total disaster in the event of a major animal disease outbreaks
c. First prospective studies towards a risk partnership between agricultural business, the insurance companies and the government.	O/T: Evidence based decision making offers the chance for better founded actions but costs time and money O: Opportunities to develop new CRSS, tailored to specific situations
d. Polluter pays principle: more private responsibility	T/O: Public funding linked to mandatory private co-funding. This might limit available funds but

	also, increase efficiency. Depends on the nature of the private schemes. Difficult to allocate responsibilities, difficulties in preventing spread of vector-born diseases, prevention strategies are not exclusive of the farming sectors, legislation, MS controls and veterinary services are as important as preventive measures taken at farm level
e. Prevention better than cure-principle	O: Following this principle, funds will be allocated to ex-ante and not to ex-post measures
f. European Models of Agriculture – sustainability	O: Reflecting sustainability in production and consumption, legislation will aim to include all impacts in actual cost for the sector e.g. internalization of risks. T: economic sustainability of the EU model. EU farmers already comply with higher standards than our trading partners

Table A6.3: Identified PEST forces and related opportunities/threats in relation to option 3a (continued)

Economic forces	Related threats and opportunities for OPTION 3A
a. Increased hazard of epidemics within the EU 27;	O/T: opportunities/threats to check whether the system works or not and whether it will allow to achieve a better prevention of animal diseases
b. Increasing competition from third country imports (e.g. milk)	O: High food safety standards and public health as competitive advantage on the market T: Competitiveness of AGRI_business in international markets already hampered by EU legislative framework, labour costs and legislation. Additional costs might increase the gap with third country producers
c. Increasing production costs due to increasing societal demands (human health, animal welfare, ...) and linked legislation	O: Access to EU and MS public funds for compensation of 'public goods' production
d. Strong tendency towards large scale farming	O: Economic sustainability of industrial livestock production, if full costs of risks of animal disease outbreaks etc will have to be internalized O: easier implementation of CRSS by large scale farms
e. Fall in direct public payments (CAP)	O: High animal health and welfare and public health as legitimacy for Direct payments (SFP)

	T: lower acceptability of extra-costs
f. Competitive pressure to increase profitability (Market strategies towards more high added-value products)	O: High quality and food safety as competitive advantage on EU market T: animal health not perceived by consumers as an added-value, not willing to pay more, especially in the crisis context

Social/cultural forces	**Related threats and opportunities for OPTION 3A**
a. Increasing societal demands in various areas (including human and animal health, feeds, animal welfare, ..);	O: Increased legitimacy for Direct payments (CAP SFP) to compensate for higher costs O: Acceptance of the new schemes by the general public
b. Limited -willingness-to-pay of consumer for extra societal demands (e.g. disease prevention) leading to higher costs;	O/T: Necessity for labelling and (global)standards as well as consumer information and awareness on high quality of EU production
c. Social unrest by large scale killing in cases of notifiable animal diseases;	O: Prevention and risk internalization as tool to end unsustainable production methods T: Not sure CRSS will help to prevent this

Technological forces	Related threats and opportunities for OPTION 3A
a. Climate change in relation with emerging diseases (animals as a vector to humans);	O: More incentive for the schemes
b. Increasing availability of diagnostic and monitoring tools;	
c. Increasing development and availability of supporting quality insurance schemes for animal production (animal health, welfare, environment, ...)	O: Will help to develop the schemes

APPENDIX 7: ECONOMIC PARAMETERS

Table A7.1: Prices and costs in € per animal for culling and disinfection

	Value culled animal (price)	Value destructed feed	Costs of vaccination	Clearing and disinfection	Weight in kg
Cattle:					
Dairy cows	759	44	8.8	1000	600
Young stock	577	44	8.8	1000	250
Veal calves	411	26	2.6	150	250
Other cattle	759	33.3	8.8	1000	600
Sheep:	73	1.6	2.6	100	70
Pigs:					
Sows	522	33	7.2	400	450
Fattening pigs	77	3.7	1.8	150	65
Poultry					
Broilers	0.98	0.08	0.00	3.18	1.1
Layers	2	0.18	0.00	7.30	1.5
Breeders	7	0.32	0.00	13.10	3.5
Ready-to-lay	5.84	0.32	0.00	13.10	0.6
Hatching	0	0	0	0	0

Table App 7.2 Costs related to Screening and Movement restriction Measures

These Direct Cost are NOT ELIGIBLE within regulation EC no 349/2005

	NL	FI	RO	
Destruction (transport included)	0.19	0.19	0.19	€/kg
Taking samples as suspect	237901	37332	34404	€/case
Taxation	395	395	395	€/cleared farms
Execution of screening	194699	30552	28156	€/case
Materials, etc.	5323	835	769	€/cleared farms
Enforcement				
Costs for RDW	16208	18678	8490	€/week
Costs for defence (army)	230163	265236	120561	€/week
Costs for customs	97252	112071	50941	€/week
Cost for police	1137851	1311238	596017	€/week
Costs for agr. inspection (AID)	389009	448286	203766	€/week
(total)	1870486	2155512	979778	

Table A7.3: Farm size in the Netherlands, Finland, and Romania

Farm size (animals/farm)				
	cattle farm	sheep	pig	poultry
NL	101	78	1227	39627
FL	50	53	513	203
RO	3	16	3	13

APPENDIX 8: STAKEHOLDER MEETING 15TH APRIL 2011

Name	Organisation
Participants in the workshop	
Penny Johnston	Copa Cogeca
Mg Salman	Copa Cogeca
Mette Jensen	Copa Cogeca
Pasquale Di Rubbo	Copa Cogeca
Klaas Johan Osinga	Copa Cogeca
Cees van Meeren	Avec
Jos Klessens	Clitravi
Capogena Guiseppe Luca	EUCVB
Jan Vaarten	FVE
Francisco REVIRIEGO-GORDEJO (chair)	DG SANCO D1
Velentina Piazza	DG SANCO D4
L. Vandenberghe	DG SANCO D4
Chiara Pinna	DG SANCO D1
Ines Moreno	DG SANCO D1
Sanna Mesma	DG SANCO D1
Barbara Boue	Hungarian presidency
Martien Bokma	WUR
Ron Bergevoet	WUR
Elisabetta Pesenti	IBF
Not present but responding to the questionnaire	
Alain C. CANTALOUBE	FESASS

Organisations represented at the workshop

AVEC represents and promotes the interests of the European poultry sector. http://www.avec-poultry.eu/

Clitravi The Liaison Centre for the Meat Processing Industry in the European Union (CLITRAVI) is the professional organisation. http://www.clitravi.eu/

The **European Livestock And Meat Trading Union (UECBV)**, is the mouthpiece of national federations representing livestock markets, livestock and meat traders, slaughterhouses, cutting plants and meat preparation plants. http://www.uecbv.eu

COPA COGECA: COPA (Committee of Professional Agricultural Organisations) and COGECA (General Committee for Agricultural Cooperation in the European Union). http://www.copa-cogeca.be

The Federation of Veterinarians of Europe (FVE) is an umbrella organisation of veterinary organisations from 38 European countries. hfve.org

European Federation for Animal Health and Sanitary Security/ Féderation Européenne pour la Santé Animale et la Securité Sanitaire, FESASS) is an European organization representing breeders in the field of animal health. adt.de/fesass_en.html

Workshop

Date 15th April DG SANCO

Introduction

In the presentation the Cost and responsibility Sharing scheme (CRSS) was described. This CRSS has 3 components:

1. The Bonus Malus system (BM);
2. A public private partnership (PPP) in each MS that covers the direct costs of a disease outbreak;
3. Coverage of indirect costs.

In this workshop we want to obtain insight in your opinion towards the different components.

Therefore we want you to fill in this form that consists of two items:

1. Assessing the importance of the different items of the CRSS;
2. Ranking of the different policy options.

Assessing the importance of the different items of the CRSS

In the first part we want you to evaluate the relative emphasis you think that the components should have. For this we want you to distribute 100 point amongst the 3 components.

For example: If you think that only 1 part is vital for the CRSS and the rest is irrelevant than you give 100 point to this components. If you think all three are equally important you give all 3 components 33 1/3 points.

This part consists of 3 rounds:

- In the first round we ask you to fill in the table based on your opinion.
- We will display the response of the different participants and each participant is asked to briefly motivate her/his distribution of points.
- In the 2nd round you are asked again (having heard the motivation of the other respondents) to fill in the table

Table 1: The different parts of the CRSS

Part of CRSS	Points session 1	Points session 2
The Bonus Malus system (BM)		
Public Private Partnership to cover direct costs (PPP)		
Part of indirect costs covered		

Ranking of the different policy options

In the CRSS:

- The Bonus Malus system can be included (**Yes**) or not included (**No**)
- The public private partnership (PPP) can be **voluntary** of **compulsory** for MS to implement
- Coverage of part of the indirect costs in the CRSS can be **included** or **excluded**

Combining the different parts of the CRSS gives 8 different combinations as shown in table 2.

Table 2 Different policy options

	BM	PPP	Coverage of part of indirect costs	Rank
1	**No**	**Voluntary**	**Excluded**	
2	**No**	**Voluntary**	**Included**	
3	**No**	**Compulsory**	**Excluded**	
4	**No**	**Compulsory**	**Included**	
5	**Yes**	**Voluntary**	**Excluded**	
6	**Yes**	**Voluntary**	**Included**	
7	**Yes**	**Compulsory**	**Excluded**	
8	**Yes**	**Compulsory**	**Included**	

Please rank the different option according to your preference. Where rank 1 is the most preferred option in your opinion and 8 is the least preferred option.

Thank you for your collaboration.

Ron Bergevoet (ron.bergevoet@wur.nl)

Copa-Cogeca contribution to the feasibility study on the development of a harmonized EU framework for Cost and Responsibility Sharing Schemes (CRSS) for animal diseases

Final remarks

I. Assessing the importance of the different items of the CRSS

Copa-Cogeca has been asked to distribute 100 points amongst the 3 different components[28] of the CRSS. The rank should reflect our priority list.

Part of CRSS	Points (Copa-Cogeca views)
The Bonus Malus system (BM)	**0**
Public Private Partnership to cover direct costs (PPP)	**0**
Part of indirect costs covered	**100**

Copa-Cogeca views:

1. Farmers already bear a lot of costs to control animal diseases on the farm. It should be clear that the aim of CRSS should be "better regulation" and not incurring extra costs for farmers for disease control.
2. It is of the utmost importance that remains an incentive for the farmer to report diseases as early as possible, also in case of difficult financial situation at the farm level;
3. There must always be reliable public intervention and support for the animal health sector, and guaranteeing that special disease status' at regional or MS level are fully respected;
4. Despite appropriate preventive measures, farmers are often faced with threats over which they have little or no control (e.g. introduction on the farm of FMD, HPAI, BTV or CSV).

[28] For example, if you think that only 1 part is vital for the CRSS and the rest is irrelevant than you give 100 point to this components. If you think all three are equally important you give all 3 components 33 1/3 points.

5. The CRSS scheme shall cover all direct and consequential losses:
   - losses to farms within the zones, which do not have the disease but will be affected by the stand still (not able to slaughter, slaughter of animals for welfare reasons, market disturbances, etc.);
   - removal of the killed or dead animals;
   - costs for cleaning and disinfection of premises (initial + final);
   - monitoring measures to be implemented;
   - measures to fight diseases including vaccination;
   - costs of obtaining disease-free status again;
   - costs associated with getting back in business for the affected farmer, such as the restocking of farms and possible falling prices as a result of market disturbances related to the outbreak. This includes the possibility of food chain partners are avoiding products from animals emergency vaccinated against FMD, CSF or AI.
6. The Bonus Malus system between the EU and MS, as presented in the study, is not sector related. This means, for example, that the levels of outbreaks in the poultry sector can recogniz the level of contribution that the pig sector may receive for an outbreak. The sector might be not credited for the work already carried out in the area of biosecurity and fighting animal diseases on farm.

II. Ranking the different policy options

Option	BM	PPP	Coverage of part of indirect costs	Rank
1	No	Voluntary	Excluded	
2	**No**	**Voluntary**	**Included**	**1**
3	No	Compulsory	Excluded	
4	No	Compulsory	Included	
5	Yes	Voluntary	Excluded	
6	Yes	Voluntary	Included	
7	Yes	Compulsory	Excluded	
8	Yes	Compulsory	Included	

In the CRSS:

- The Bonus Malus system can be included (**Yes**) or not included (**No**)
- The public private partnership (PPP) can be **voluntary** of **compulsory** for MS to implement
- Coverage of part of the indirect costs in the CRSS can be included or excluded

Rank 1 is the most preferred option and 8 is the least preferred option.

Copa-Cogeca views

Among all policy options presented above, Copa-Cogeca would be in favour of **option 2**:

- no Bonus Malus system in place;
- voluntary possibility for each Member State to decide whether or not to implement a public private partnership to cover part of the animal diseases losses;
- covering part of indirect costs.

However, in a limited number of Member States farmers are already included in a mandatory public/private partnership to cover animal disease costs, and this should be recognized.

Topic: Stakeholder meeting Feasibility study on the revision of Council Decision 2009/470/EC (ex 90/424/EEC)

Name :……Jos Klessens……..

Organisation : …Clitravi/Dutch Meat association (COV)..

1. **Assessing the importance of the different items of the CRSS**

Table 1 The different parts of the CRSS

Part of CRSS	Points session 1	Points session 2
The Bonus Malus system (BM)		20
Public Private Partnership to cover direct costs (PPP)		50
Part of indirect costs covered		30

Ranking of the different policy options

In the CRSS:

- The Bonus Malus sytem can be included (**Yes**) or not included (**No**)
- The public private partnership (PPP) can be **voluntary** of **compulsory** for MS to implement
- Coverage of part of the indirect costs in the CRSS can be **included** or **excluded**

Combining the different parts of the CRSS gives 8 different combinations as shown in table 2.

Table 2 Different policy options

	BM	PPP	Coverage of part of indirect costs	Rank
1	**No**	**Voluntary**	**Excluded**	**7**
2	**No**	**Voluntary**	**Included**	**3**
3	**No**	**Compulsory**	**Excluded**	**5**
4	**No**	**Compulsory**	**Included**	**1**
5	**Yes**	**Voluntary**	**Excluded**	**8**
6	**Yes**	**Voluntary**	**Included**	**4**
7	**Yes**	**Compulsory**	**Excluded**	**6**
8	**Yes**	**Compulsory**	**Included**	**2**

Topic: Stakeholder meeting Feasibility study on the revision of Council Decision 2009/470/EC (ex 90/424/EEC)

Workshop

Date 15 April DG SANCO

Name :Vermeeren……

Organisation : …a.v.e.c.……

E-mail :…cv@avec-poultry.eu……

Table 1 The different parts of the CRSS

Part of CRSS	Points session 1	Points session 2
The Bonus Malus system (BM)	20	
Public Private Partnership to cover direct costs (PPP)	70	
Part of indirect costs covered	10	

Comment C. Vermeeren: Reflecting on the Bonus-Malus after the meeting I considered them not in balance with each other. I expressed not to be convinced of the effect, but as it looks now is unbalanced and not really an incentive. It will take 10 year to get the max bonus where after an outbreak of more than 9 Million the MS get a penalty of 10% and it will need 20 year to arrive again at the max of 60. I would suggest a bonus scheme that grants 4% after the first year without an outbreak plus 3% after 2 years plus 2% after 3 years and 2% for every following year till max 60%.

Table 2 Different policy options

	BM	PPP	Coverage of part of indirect costs	Rank
1	**No**	**Voluntary**	**Excluded**	**8**
2	**No**	**Voluntary**	**Included**	**6**
3	**No**	**Compulsory**	**Excluded**	**1**
4	**No**	**Compulsory**	**Included**	**3**
5	**Yes**	**Voluntary**	**Excluded**	**7**
6	**Yes**	**Voluntary**	**Included**	**5**
7	**Yes**	**Compulsory**	**Excluded**	**4**
8	**Yes**	**Compulsory**	**Included**	**2**

FESASS contribution to the feasibility study

on the development of a harmonized EU framework for Cost and

Responsibility Sharing Schemes (CRSS) for animal diseases

FESASS welcomes the consultation of stakeholders on the feasibility study on the revision of Council Decision 2009/470/EC (ex 90/424/EC) on expenditure in the veterinary field. Adequately compensating farmers for their losses during an outbreak is one of the most important elements to safeguard an efficient fight against animal diseases. Although the current system worked pretty well in the past, it seems advisable to take in account some lessons learnt in the past and to align it with the new EU animal health strategy's priorities.

I. Assessing the importance of the different items of the CRSS

The Bonus Malus system (BM)	0
Public Private Partnership to cover direct costs (PPP)	20
Part of indirect costs covered	80

FESASS views:

1. The Bonus Malus system could be an incentive for MSs to have a better management of an animal health crisis. But it is hard to see how it could be applied without creating new inequities. The BM is for example not sector related, whereas it would be important in our view to distinguish between outbreaks in different animal species (for instance the pig or the poultry sector in some MSs, which already apply strong biosecurity systems, should not have to bear the risk of lower compensation for the respective MS due to disease outbreaks in other sectors). Conversely, the high density and intensive production in these sectors are risk factors which must not weigh on other sectors. In addition, the BM does not take care of the geographical risk exposition and the consequences for farmers are not evaluated. It is also important to understand that the geographical risk is not the same between MSs and the likelihood of an outbreak will differ. So it would be very difficult to respect the equity in this kind of Bonus Malus system.

2. Farmers already bear the costs to prevent and control animal diseases on their farms and the total amount spent by the sector is higher than the public expenses in this field. The new animal health strategy's goal is to improve private and public investment in prevention. This should not lead to increasing costs for farmers. FESASS is in favour of a private – public partnership for the adoption of pre-

ventive measures and for crisis management. The PPP is not the right tool to share responsibilities and costs for disease outbreaks over which farmers have little or no control. It is also a question of competitiveness. It should be recognized that farmers in some MS are already part of such compulsory public - private partnerships to cover animal disease costs.

3. The adequate and fast compensation is also an important tool to maintain farmers' confidence in the system. It must remain an incentive for the farmer to report diseases as early as possible.

4. The CRSS scheme should also cover, at least partly, consequential losses like:

   - Production losses (culled farms and farms affected by the stand still),
   - Additional cost for feeding animals in farms affected by the stand still,
   - Costs to get disease-free status again,...

   These costs are important for the farms and the amount is depending on the decisions actually taken by the competent authorities. However, it has to be borne in mind that indirect costs are more difficult to calculate and such a procedure should not overly add administrative burden.

II. Ranking the different policy options

Option	BM	PPP	Coverage of part of indirect costs	Rank
1	No	Voluntary	Excluded	
2	**No**	**Voluntary**	**Included**	**1**
3	No	Compulsory	Excluded	
4	No	Compulsory	Included	2
5	Yes	Voluntary	Excluded	
6	Yes	Voluntary	Included	
7	Yes	Compulsory	Excluded	
8	Yes	Compulsory	Included	

FESASS views

FESASS prefers **option 2** because it is in favour of a CRSS:

- without Bonus Malus system,
- with the possibility for each Member State, on a voluntary basis, to decide the implementation of a public private partnership to cover part of the animal diseases losses;
- with a coverage of most important consequential losses and costs.

Option 4 would be the second choice.

Options with a BM or those excluding the compensation of indirect costs are out of the question for us.

Topic: Stakeholder meeting Feasibility study on the revision of Council Decision 2009/470/EC (ex 90/424/EEC)

Workshop

Date 15 April DG SANCO

Name :……CAPODIECI Giuseppe Luca……..

Organisation : …UECBV – European Livestock and Meat Trading Union…….

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Introduction

In the presentation the Cost and responsibility Sharing scheme (CRSS) was presented. This CRSS has 3 components:

4. The Bonus Malus system (BM);
5. A public private partnership (PPP) in each MS that covers the direct costs of a disease outbreak;
6. Coverage of indirect costs.

In this workshop we want to obtain insight in your opinion towards the different components.

Therefore we want you to fill in this form that consists of two items:

3. Assessing the importance of the different items of the CRSS;
4. Ranking of the different policy options.

2. Assessing the importance of the different items of the CRSS

In the first part we want you to evaluate the relative emphasis you think that the components should have. For this we want you to distribute 100 point amongst the 3 components.

For example: If you think that only 1 part is vital for the CRSS and the rest is irrelevant than you give 100 point to this components. If you think all three are equally important you give all 3 components 33 1/3 points.

This part consists of 3 rounds:

- In the first round we ask you to fill in the table based on your opinion.
- We will display the response of the different participants and each participant is asked to briefly motivate her/his distribution of points.
- In the 2nd round you are asked again (having heard the motivation of the other respondents) to fill in the table

Table 1 The different parts of the CRSS

Part of CRSS	Points session 1	Points session 2
The Bonus Malus system (BM)		20
Public Private Partnership to cover direct costs (PPP)		50
Part of indirect costs covered		30

3. Ranking of the different policy options

In the CRSS:

- The Bonus Malus system can be included (**Yes**) or not included (**No**)
- The public private partnership (PPP) can be **voluntary** of **compulsory** for MS to implement
- Coverage of part of the indirect costs in the CRSS can be **included** or **excluded**

Combining the different parts of the CRSS gives 8 different combinations as shown in table 2.

Table 2 Different policy options

	BM	PPP	Coverage of part of indirect costs	Rank
1	**No**	**Voluntary**	**Excluded**	**7**
2	**No**	**Voluntary**	**Included**	**3**
3	**No**	**Compulsory**	**Excluded**	**5**
4	**No**	**Compulsory**	**Included**	**1**
5	**Yes**	**Voluntary**	**Excluded**	**8**
6	**Yes**	**Voluntary**	**Included**	**4**
7	**Yes**	**Compulsory**	**Excluded**	**6**
8	**Yes**	**Compulsory**	**Included**	**2**

Please rank the different option according to your preference. Where rank 1 is the most preferred option in your opinion and 8 is the least preferred option.

Thank you for your collaboration.

Ron Bergevoet (ron.bergevoet@wur.nl

[i] Relevant regulations: (EEC) No. 2759/75, (EEC) No.2771/75, (EEC) No. 2777/75, (EC) No.