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AGRIGRID
**Methodological grids for payment calculations in rural development
measures in the EU**

**Review of payment calculations in animal welfare measures
(215)**

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List of abbreviations

AGREA	Emilia- Romagna region's (Italy) Paying Agency
AHWM	Animal Health and Welfare Management
AWB	Agricultural Wage Board
BVA	British Veterinary Association
CRPA	Research Centre for Animal Production in Italy
DE	Germany
EC	European Commission
EEC	European Economic Community
ES _{CL}	Castilla y Leon region (Spain)
EU	European Union
EUR	Euro
FADN	Farm Accountancy Data Network
FI	Finland
GAEC	Good Agricultural and Environmental Conditions
GR	Greece
INEA	National Institute of Agricultural Economics (Italy)
IT _{ER}	Emilia-Romagna region (Italy)
KTBL	Association for Technology and Structures in Agriculture in Germany
LAEI	Lithuanian Institute of Agrarian Economics
LMC	Land Management Contracts
LSU	Livestock Unit
MoA	Ministry of Agriculture
MTT	Agrifood Research Finland
n.d.	no data
NPA	National Paying Agency
RDP	Rural Development Plan
SCO	Scotland
SD	Statistical Department
SMR	Statutory Management Requirements

1. Introduction

AGRIGRID aims to develop methodological grids for the calculation of payments in rural development (RD) measures in EU member states, including Scotland, Germany, Finland, Lithuania, Czech Republic, Italy, Greece and regional case studies in Spain and Poland as subcontractors.

There are general facts/issues in relation to animal welfare payments (further – animal welfare) as defined in EC regulations set down primarily in the review. Schemes of payments calculations used in partner countries are presented in the following review sections. In accordance with countries experience costs components and their assessments are identified, data types and sources are outlined. The review concludes with the main findings and problems which may occur in the further grids development.

The Review shows that animal welfare is one of the measures targeting the sustainable use of agricultural land under the Axis 2: Improving the environment and the countryside. The code of the animal welfare measure is 215. Animal welfare payments can be paid on the basis of Articles 36 (a) (v) and 40 of Regulation (EC) No 1698/2005 and Article 27 point 5.3.2.1.5 of Annex II of Regulation (EC) No 1974/2006 in the EU. The reference level for calculating income foregone and additional costs resulting from the commitments given shall be the relevant standards and requirements referred to in Article 39(3) and Article 40(2) of Regulation (EC) No 1698/2005.

Six of the nine investigated countries are going to implement animal welfare Payments measure: Germany, Castilla Y Leon (Spain) Finland, Greece, Emilia – Romagna (Italy), Scotland (SCO). Animal welfare payments are differentiated in Germany, Castilla Y Leon (Spain), Emilia - Romagna (Italy) Finland and Scotland (SCO).

Only in Germany and Scotland the animal welfare measure was implemented during 2000-2006 Programming period

Key points of the review

- existence of animal welfare payments in partner countries;
- types of animal welfare payments differentiation;
- eligibility criteria;
- commitments which must be undertaken;
- payment calculation process;
- problems and relevant solutions identified during payment calculation;
- types of data used in payment calculation.

2. Comparative analysis

2.1. Basic data of the animal welfare measure

This section aims at comparison of different approaches to payments differentiation.

2.1.1. Comparison of basic information for the animal welfare measure

Regulation (EC) No 1698/2005 determines that support for animal welfare shall be limited to the maximum amount of EUR500/LSU. Support level has to be determined on the basis of: standard costs; standard assumptions of additional costs, income foregone and transaction cost. Animal welfare commitments shall be implemented at least in one of the following areas: water and feed closer to their natural needs; housing conditions, such as space allowances, bedding, natural light; outdoor access; absence of systematic mutilations, isolation or permanent tethering; prevention of pathologies mainly determined by farming practices or/and keeping conditions.

There are different measures and submeasures in analysed countries. Germany has four submeasures: Cattle on summer pasture, Cattle and pigs in loose housing stables (free stall barn) with grazing, Cattle and pigs in loose housing stables (free stall barn) on straw and Cattle and pigs in loose housing stables (free stall barn) on straw with outdoor run-outs. The last one has ten submeasures according animal species. There are three submeasures in Castilla Y Leon (Spain): Laying hens (battery hens, slatted-floor hens, free-range hens), Broilers (conventional production, extensive, open air) and Intensive breeding sows, where first two (see in brackets) are split into submeasures according animal species. In Finland, animal welfare measure has two submeasures according to animal species: Bovines and Pigs. During the preparation of animal welfare measure, there were discussions to include also poultry, horses, sheep, goats and fur animals into the animal welfare measure. Because the economic significance of those species is not so high as of bovines and pigs, it was decided to exclude those animal groups and maybe include them later. In Scotland, animal welfare measure differs from other mentioned countries. The measure Animal Health and Welfare Management (AHWM) Programme based on compulsory submeasure which comprise two parts (AHWM Plan Proactive scheme for treatments and AHWM Plan Proactive scheme for vaccines and routine medications) and voluntary submeasures (Benchmarking, Bio-security, Sampling and Forage analysis). There are six measures in Emilia – Romagna (Italy) according to animal species: Dairy cattle, Beef cattle, Sheep, Laying hens, Broilers, and Pigs. Animal welfare payments levels differ among countries' measures and submeasures (Annex 1 and 2).

In all analysed countries, the animal welfare measure is implemented horizontally and support intensity is 100 percent, except Scotland, where support is 75 percent. Current payment levels decreased in comparison with previously existing payments in Germany, mainly increased in Scotland. The measure did not exist in the previous programming period in Finland, Emilia - Romagna (Italy) Greece and Castilla Y Leon (Spain).

2.1.2. Existence of payment differentiation

Animal welfare payments in all analysed countries for each submeasure are not differentiated except Emilia - Romagna (Italy). There is only one payment level for each submeasure as for example in the case of compulsory and voluntary submeasures/options in Scotland.

In Emilia - Romagna (Italy), each of above mentioned types of submeasures is differentiated according to commitment typology (Improvement of farm and private management; Improvement of breeding and stalling systems; Improvement of environmental monitoring; Improvement of feeding and watering; Improvement of cleanliness, health and behavioural aspects). Additional differentiation by federal state incurred in Germany. Federal states can reduce payments up to 30% or increase allowances up to 20%.

2.2. Methodology of the payment calculation

This part of the review summarises the different eligibility criteria, scheme commitments, cost components and their quantification, base line requirements and linkages with other rural development measures. Additionally, this part of the review also investigates problems with payments calculations and their possible solutions. According information provided by other countries the main approaches and components of payment process are presented. The most complex examples of payments calculations from Finland and Emilia - Romagna (Italy) are provided.

2.2.1. Comparison of eligibility criteria, relevant commitments, contractual obligations and land use / management changes

EU legislation provides a number of general for all the RDP and specific for animal welfare measure eligibility criteria which are predominant among the countries for animal welfare. Specific eligibility criteria for animal welfare are presented in the table below.

Table 2.1 Eligibility criteria for animal welfare in partner countries

Eligibility criteria	DE	ES _{CL}	FI	GR	IT _{ER}	SCO
Status of applicant	-	√	√	-	√	-
Age of applicant	-	-	18 - 65	-	-	-
Livestock amount, LSU/farm	-	-	>10	-	>6	>4*
Region	horizontal	regional	horizontal	-	horizontal	horizontal
Regulations of animal welfare in force	-	√	-	√	-	-
Status of penalties	-	√**	-	-	-	-
Status of animal waste usage system	-	√***	-	-	-	-

* - excluding pigs and poultry

** - the applicant must not have been found guilty of breaking welfare regulations

***- there must be an adequate system for management of animal waste

The relevant commitment as referred to in Article 40 of Regulation (EC) No 1698/2005 shall provide upgraded standards could be divided into 5 groups (Table 2.2).

Table 2.2 Relevant commitments for animal welfare in partner countries

Relevant commitments	DE	ES _{CL}	FI	GR	IT _{ER}	SCO
Prevention of pathologies mainly determined by farming practices or/and keeping conditions	-	√	√	√	√	√
Housing conditions, such as space allowances, bedding, natural light	√	√	√	√	√	-
Outdoor access	√	√	-	√	√	√
Water and feed closer to their natural needs	-	-	-	√	√	√
Absence of systematic mutilations, isolation or permanent tethering	-	-	√	√	√	-

The country entering into the animal welfare has to keep up with at least one of the above mentioned relevant commitments. Contractual obligations appear different when countries set different bounds for implementation (Annex 3).

Land use / management changes will occur in three main directions when implementing commitments (see table below). Information provided shows that animal keeping conditions (appropriate density of livestock LSU/ha, beddings, etc. will be changed in all partner

countries.)

Table 2.3 Land use / management changes for animal welfare in partner countries

Land use / management changes	DE	ES _{CL}	FI	GR	IT _{ER}	SCO
Relevant animal keeping conditions (appropriate density of livestock LSU/ha, beddings, etc.)	√	√	√	√	√	√
Health care			√			√
Farm management (Systematic production monitoring on the farms, Forage analysis and feeding plans)			√		√	√

Detail land use / management changes are presented in Annex 4.

2.2.2. Processes of payments calculation

Animal welfare payments calculation process includes three types of elements: additional costs, income foregone and transaction costs. For some countries just additional costs are applicable and for some use different combination of mentioned elements (Table 2.4).

Table 4 Elements of animal welfare payment

Payment elements	DE	ES _{CL}	FI	GR	IT _{ER}	SCO
Additional costs	√	√	√	√	√	√
Income foregone	-	√	√	-	-	-
Transaction costs	-	√	√	-	√	-

Additional costs are based mainly on labour costs (SCO, IT_{ER}, DE) and other material and service costs. There are two different ways of calculating transaction costs: 1) as a percentage of the total amount of expenditure (FI, ES_{CL}) and 2) as constant amount added to payment (IT_{ER}). Identification of particular items-income foregone and additional costs entering into payments listed in Annex 5.

In Finland, payment calculation process besides mentioned elements includes one additional element – so called “Additional profit”, which benefit farms introduced animal welfare to compare with traditional farming. Furthermore, Finland has very detail calculation including particular activities (Table 2.5).

Table 2.5 Payment calculation of the AW measure in Finland, EUR/LSU

Contractual obligations	Activities	Additional costs	Income foregone	Transaction costs
Improving live stock keeping conditions	Decreased density of LSU/ha, watering, backup systems for ventilation, feeding equipment failure, testing and maintenance of the unit	11.42	7.56	20% of the payment elements (33.05+27.95-46.42)x0.2 =2.92
Improving of health care requirements	Health care plans, agreements, visits, farm level disease protection, preventing of spreading faecal pathogens	10.65	11.87	
Introducing of production monitoring	Production monitoring	0.20	5.72	
Introduction of feeding plans	Feeding plans	10.78	2.80	
Total		33.05	27.95	
Additional profit		46.42	-	-
The payment		33.05+27.95-46.42+2.92=17.50		

In Emilia-Romagna (Italy), the payment calculation process, besides the elements already mentioned, includes also additional element – so called “Savings”. In the case of Emilia - Romagna (Italy), this element include veterinary cost. As in case of Finland, it reduces the payment amount. Additional costs per LSU per ha have been estimated as follows: +5% for feeding costs, +15% for labour costs, +10% for energy costs, -15% for veterinary and sanitary costs; moreover, EUR100 per farm have been considered as costs for acquisition and transfer of know-how. Calculated payments (maximum levels) must be reduced according to the different importance conferred to each improvement typology, so to define a “base premium” for each of them, according to the following Table 2.6.

Table 2.6 Payment calculation of the AW measure in Castilla Y Leon (IT), EUR/LSU

Improvement of farm and private management	Improvement of breeding and stalling systems	Improvement of environmental monitoring	Improvement of feeding and watering	Improvement of cleanliness, health and behavioural aspects
5%	30%	25%	15%	25%
9,82 EUR/LSU	58,95 EUR/LSU	49,12 EUR/LSU	29,48 EUR/LSU	49,12 EUR/LSU

Summarising the investigations results on animal welfare payment process, the conclusion can be drawn that payment could comprise five elements: additional costs, savings, income foregone, additional profit and transaction costs.

2.2.3. Comparison of baseline requirements affecting payment calculation

Baseline requirements cover relevant GAEC included in Annex IV and SMRs included in Annex III of Regulation (EC) No 1782/2003, which are not included in payment calculation process. GAEC and SMRs both are used in Germany, Finland, Emilia-Romagna (Italy) and Scotland as baseline requirements for payment calculation under animal welfare. Any GAEC requirements affecting payment calculation specified in Greece and Castilla Y Leon (Spain). In Castilla Y Leon (Spain), SMRs are not specified either (See table below). For more details refer to Annex 6.

Table 2.7 Existence of baseline requirements affecting payment calculation

Baseline requirements	DE	ES _{CL}	FI	GR	IT _{ER}	SCO
GAEC	√	-	√	-	√	√
SMRs	√	-	√	√	√	√
Others	-	-	-	-	-	-

√ = yes, - = no

2.2.4. Limitation of payment level

The maximum amount for the animal welfare measure is 500 EUR/LSU/year set by Regulation (EC) No 1698/2005. There are no submeasures which payments exceeding this limit across the countries. Only mentioned limitation per LSU is applied in Germany, Finland, Castilla y Leon region (Spain) and Greece. But there are additional bounds depending on animal species, regional aspects in Emilia-Romagna region (Italy).

Table 2.8 Maximum criteria for animal welfare payments in Italy

Name of criteria	Maximum payment level, EUR/LSU
Dairy cattle:	
• Production of Parmigiano-Reggiano in mountain areas	303.50
• Production of Parmigiano-Reggiano in the plain	196.49
• Production of Grana Padano / production of drinking milk	202.58
Beef cattle:	
• Calves for fattening	75.85
• Heifers for fattening	242.64
• Breeding heifers	193.68
Sheep (dairy or fattening)	80.33
Laying hens	60.00
Broilers	23.33
Pigs	35.30

In order to ensure sufficient funding to all farms entering animal welfare measure and to prevent overcompensation maximum limit of EUR5 000 per farm is applied in Finland.

Fence maintenance payment is limited to 3 000 metre per farm that equals 450 EUR per farm in Scotland.

2.2.5. Interrelations between the animal welfare measure and other measures

Certain relationships of the animal welfare measure (submeasures) to other measures (in or out of RDP) are observed in Germany, Finland, Greece and Scotland.

Farms that have concluded a special agri-environment contract for organic livestock production in Finland cannot select such additional conditions: cattle farms - “Grazing during the growing period and exercise during the winter” and pig farms - “Free farrowing for sows”. This restriction may affect the payment level for organic farms. Animal welfare payments in Finland can also be promoted with other RDP measures such as training, agricultural investments and related building instructions, as well as measures of the rural network (e.g. production of advisory material and guides, and training events). Provision for complementarities with investment aid to livestock farms through the RDP measure 121 modernisation of agricultural holdings are observed in Greece.

Farm investment support programme within the National Framework Regulation in Germany is intended for investments which aim to fulfil specific requirements of improvement of animal welfare and animal hygiene. There exists the possibility to grant a payment of up to 30%.

Animal health and welfare can also be promoted with nationally financed advisory services and measures related to the quality strategy in Finland. The measures are complementary.

There are no direct linkages or interdependencies between the animal welfare measure and other rural development measures in Scotland. However, the animal welfare measure is part of the of the Menu Scheme (Tier 2) of the Land Management Contracts (LMCs) recently implemented in Scotland and as such affected by the rules defined for the overall framework of LMCs. While there are no direct linkages between any of the measures on the Menu, the overall amount of support a farm can receive through LMCs is limited which could potentially restrict the ability of the farm(er) to take up the animal welfare measure. The maximum amount that will be payable to a farm has been implemented depending on the size of the farm. In the past year the

maximum amount payable to a farm was:

- first 10 ha at EUR112.5 per hectare;
- next 90 ha at EUR45 per hectare;
- next 900 ha at EUR1.5 per hectare;
- any hectares over EUR1 000 at EUR0.15 per hectare.

HI Health Ltd has two levels of membership. All participants must join of Level 1 (Health Planning) before progressing to Level 2 (Disease Eradication and Accreditation) or may join both Levels at the same time.

2.3. Data sources and administrative issues

2.3.1. Used data for payment calculation

Various combinations of different data sources were used to calculate animal welfare payments across the countries.

Data types and sources used:

- legal acts: EU Regulations, National legal acts, RDP 2007-2013;
- statistics: SD publications (annual, quarterly, monthly), FADN, agro-market publications;
- literature: scientific, handbooks;
- other: information from professional experts in the zoo-technical and agronomical sector, data from NPA.

Animal welfare payment calculations are based on different statistics in Castilla y Leon (Spain). Statistical data in combination with scientific recommendations are used to calculate payments in Germany and Emilia-Romagna (Italy). Annual Standard Gross Margins, Farm management manual and Management book for organic farming, procedures, cost calculations building solutions were used in order to calculate animal welfare payments in Germany. FADN, CRPA data in accordance with scientific literature were used in Emilia-Romagna (Italy). In addition to Census data complying with Farm Management handbook justified tariffs for labour and veterinary were used for payments calculations in Scotland. Finland was the one which has used model calculations in addition to different statistics, price lists of agro-market stores, justified tariffs for veterinary and Artturi web service on feed analysis.

2.3.2. Missed data

The lack of data on specific commitments of animal welfare schemes leads to a calculation made of broadly estimates, based on expertise. On the other hand, depending on future policy developments, the potential future need for more detailed and localised data with respect to existing and “new” (livestock) farming systems.

2.3.3. The interviewees

As far as interviews were carried out, it is necessary to point out that there were two persons from the Organic farming, extensive cultivation methods Department of the Federal Ministry of Food, Agriculture and Consumer Protection and one person from the Association for Technology and Structures in Agriculture (KTBL) were interviewed in Germany. Three persons were interviewed in Finland: Researcher from the MTT Agrifood Research Finland, Senior

Officer for Agricultural Affairs from the Ministry of Agriculture and Forestry and representative from the Central Union of Agricultural Producers and Forest Owners. Two interviewers were asked to support project with information from the Rural Development Management Authority in Greece and two persons in the Scottish Executive Environment and Rural Affairs Department were interviewed during the investigation in Scotland. Person in charge with animal welfare measure design in Emilia-Romagna Regional Administration was interviewed as well.

2.3.4. Administrative structure involved in payment calculation

Ministries of agriculture, Research institutes, Research centres on animal production and veterinary were involved in payment calculations. As a rule one or two institutions were involved in payment calculations among the countries. Calculations were committed to one institution in Germany, Castilla y Loeon (Spain), Finland and Scotland. In Greece and Emilia-Romagna (Italy) calculations were exercised by two institutions.

Such kinds of institutions were involved in calculated payment verifications: Ministries of agriculture, Research institutes, Research centres on animal production and veterinary, Universities, different associations concerned, paying agencies (national and/or regional). Payments are calculated and verified by the same number of the same institutions (ES_{CL}, GR), by the same institutions and additionally by one or more other institutions (IT_{ER}, SCO), or only by different institutions (DE, FI). There is remarkably wide range of institutions involved in payments verification in Finland and Scotland: 6 and 8 respectively.

2.4. Problems, solutions and remaining key issues for payment calculations

During animal welfare payment calculations all of the explored countries faced with number of different problems. Main problems faced areas are laid out in Table 2.9 below.

Table 2.9 Problems and solutions undertaken within payment calculation process

Problem	Solution
Lack of technical, economical data, and scientific literature.	Estimated hypothesis based on the few available scientific works.
Misunderstanding the Commission requirements (what Commission exactly expects from the animal welfare measure).	Extension of the cooperation with the Commission.
There was no adjusted and appropriate typical (reference) husbandry system, for which it is necessary to estimate costs.	Simplifications and simplifying assumptions were adopted.
Absence of a counterfactual situation.	Testing. Changes or adjustments are potential.

In some countries such as Germany over- and under-compensation was not seen as an important issue in designing the animal welfare measure, but it was seen as an important issue in other countries such as Scotland, Emilia-Romagna (Italy) and Finland. In Scotland, national payment rates based on national averages are used as sufficient, taking into account higher administration costs of more complex schemes and payment calculations. It was question if a regional approach would improve the payment calculations. It was recognized that some required actions and tasks would differ between different livestock systems, but these differences appeared not big enough to justify higher administration costs. In Emilia-Romagna (Italy), payment calculations have been carried out on hypothesis that farm implements one commitment per each improvement category. This may cause over- but above all under-compensation for farms implementing a different number of commitments but with higher administrative costs. Calculations were based on real costs Castilla y Leon (Spain), under or over compensation were

considered.

It is important to notice that there are probable some changes in animal welfare payment calculations while RDPs for 2007-2013 are still not approved by most of the countries. The Rural Development Management Authority in Greece issued a call for tender for the calculation of the Axis 2 Rural Development measures in April 2007. There was an obvious uncertainty because of permanence of the final draft of the RDP during interviews in Scotland. During the payment calculation process in Castilla y Leon (Spain), representatives of the unions and producers in poultry and pork sector advised to include some more costs for payment calculation.

In Scotland the focus and future direction of this measure was more seen on animal health than animal welfare, depending on future guidelines by the Commission.

3. Conclusions

Concluding the review it is necessary to notice that the compensatory payment for animal welfare payments measure shall be granted as: a flat rate, annually, can have submeasures, can be differentiated. It is important to signify that the animal welfare payment level has to be determined on the basis of standard costs with regard to standard assumptions of additional costs, income foregone and transaction cost, moreover calculated payment cannot exceed EUR500/LSU per year.

It was noticed that different countries use different approaches for animal welfare payments differentiation. They are differentiated according to: animal species (DE, FI; IT_{ER}, ES_{CL}), applied husbandry conditions (DE), Farm system (IT_{ER}, ES_{CL}), and commitment typology (IT_{ER}).

Summarising the investigations results on animal welfare payment process, payment could include two additional elements – savings and additional profit- besides additional costs, income foregone and transaction costs, which are mentioned in EU Regulation.

Various combinations of different data sources such as legal acts, statistical data, scientific literature, handbooks, and experts' recommendations, even the model were used to calculate animal welfare payments across the countries.

This measure is newly introduced in most of the explored countries. Therefore, the fact that there was no reference model to follow made the whole process more complicated. There is no typical husbandry system, which is necessary to estimate additional costs. Lack of technical and economic data, and of scientific literature, was identified as a problem too. In one case, market prices were included into calculation of income foregone; that means payment calculation was based on a market assumption for the future that is not certain.

With reference to accomplished comparative analysis, it is noticed that during the payment calculation process it was complicated to determine base line, with observed absence of reliable data and complexity of costs which are components of payment calculations because of changes of farming system and management.

4. Annexes

Annex 1

Table A.1 Overview of animal welfare payments (215)

Country	Name of submeasure	Payment differentiation	Level of payments		Targeting	Previous existence of the submeasure
			EUR/unit	% of calculated		
DE	Measure: Support of environmental and animal-friendly animal husbandry					
	E.1 Cattle on summer pasture	Yes	54 EUR/LSU dairy cow, 53 EUR/LSU breeding cattle, 183 EUR/LSU beef cattle, 129 EUR/LSU fattening pig, 158 EUR/LSU breeding pig By combinations with E.2 (additional honoring of pasture usage): 116 EUR dairy cows, 94 EUR breeding cattle, 219 EUR beef cattle, 182 EUR fattening pigs, 202 EUR breeding pigs.	99-100 % (amounts are being rounded)	All over Germany; effective offer of measure depends on implementation in the individual federal states. The Federal states decide whether they offer this measure.	60 EUR/LSU dairy cows, ↓ ¹ (-10%) 60 EUR/LSU breeding cattle, ↓ (-12%) 195 EUR/LSU beef cattle, ↓ (-6%) 145 EUR/LSU fattening pig, ↓ (-11%) 165 EUR/LSU breeding pig ↓ (-4%)
	E.2: Cattle and pigs in loose housing stables (free stall barn) with grazing					
	E.3: Cattle and pigs in loose housing stables (free stall barn) on straw					
	E.4: Support is granted to husbandry of dairy cows, cattle for breeding, beef cattle and pigs in animal welfare friendly stables with free roaming					
ES _{CL}	Measure: animal welfare in Castilla y Leon					
	Laying hens	NO	30-50 EUR/LSU	n.d.	Horizontal (regional)	0
	Broilers		40-60 EUR/LSU	n.d.		0
	Intensive breeding sows		100 EUR/LSU	n.d.		0
FI	Measure: animal welfare payments ²					

¹ Changed frame conditions made new calculations necessary.

² From 2008 animal welfare measure will be available to cattle and pig farms onwards there in Finland.

Country	Name of submeasure	Payment differentiation	Level of payments		Targeting	Previous existence of the submeasure
			EUR/unit	% of calculated		
		No	Basic conditions: 17.50 EUR/LSU Cattle farms 5.00 EUR/LSU Pig farms Joint additional condition Fire prevention and rescue plan: 3.58 EUR/LSU Cattle farms 1.53 EUR/LSU Pig farms Additional conditions: Additional conditions concerning cattle farms: <ul style="list-style-type: none"> • Improvement calves keeping conditions (A) 12.17 EUR/LSU • Improvement calves keeping conditions (B) 9.92 EUR/LSU • Improvement bovines opportunities to move to 8.73 EUR/LSU • Improvement bovines keeping conditions 21.06 EUR/LSU • Grazing during grow and exercise in winter 21.29 EUR/LSU • Stalls for sick animals nursing and calving 12.35 EUR/LSU Additional conditions concerning pig farms: <ul style="list-style-type: none"> • Grazing or exercise of dry sows and gilts 11.03 EUR/LSU • Insemination of sows and gilts 6.69 EUR/LSU • Space, lying areas of pregnant sows and gilts 3.07 EUR/LSU • Free farrowing for sows 13.29 EUR/LSU • Pens for sick animals 8.84 EUR/LSU • Improvement of the pen conditions 9.40 EUR/LSU 	120% ³	Horizontal	0
GR	Measure: animal welfare					
	Animal welfare	No	≤500 EUR/LSU	n.d.	Horizontal	-
IT_{ER}	Measure: animal welfare payments					

³ Transaction costs will be incurred for the farmer by the need to become acquainted with the animal welfare measure and its requirements.

Country	Name of submeasure	Payment differentiation	Level of payments		Targeting	Previous existence of the submeasure
			EUR/unit	% of calculated		
SCO	A) Improvement of farm and private management	Yes	9.82 – 15.17 EUR/LSU Dairy cattle 215(1) 3.80 – 12.13 EUR/LSU Beef cattle 215(2) 4.01 EUR/LSU Sheep 215(3) 3.00 EUR/LSU Laying hens 215(4) 1.17 EUR/LSU Broilers 215(5) 1.76 EUR/LSU Pigs 215(6)	100% 100% 100% 100% n.d. 100%	Horizontal	0
	B) Improvement of breeding and stalling systems	Yes	58.95 – 91.05 EUR/LSU Dairy cattle 215(1) 22.75 – 72.79 EUR/LSU Beef cattle 215(2) 24.10 EUR/LSU Sheep 215(3) 18.00 EUR/LSU Laying hens 215(4) 7.00 EUR/LSU Broilers 215(5) 10.58 EUR/LSU Pigs 215(6)	100% 100% 100% 100% n.d. 100%	Horizontal	0
	C) Improvement of environmental monitoring	Yes	49.12 – 75.87 EUR/LSU Dairy cattle 215(1) 18.96 – 60.66 EUR/LSU Beef cattle 215(2) 20.08 EUR/LSU Sheep 215(3) 15.00 EUR/LSU Laying hens 215(4) 5.83 EUR/LSU Broilers 215(5) 8.83 EUR/LSU Pigs 215(6)	100% 100% 100% 100% n.d. 100%	Horizontal	0
	D) Improvement of feeding and watering	Yes	29.48 – 45.52 EUR/LSU Dairy cattle 215(1) 11.38 – 36.40 EUR/LSU Beef cattle 215(2) 12.06 EUR/LSU Sheep 215(3) 9.00 EUR/LSU Laying hens 215(4) 3.50 EUR/LSU Broilers 215(5) 5.30 EUR/LSU Pigs 215(6)	100% 100% 100% 100% n.d. 100%	Horizontal	0
	E) Improvement of cleanliness, health and behavioral aspects	Yes	49.12 – 75.87 EUR/LSU Dairy cattle 215(1) 18.96 – 60.66 EUR/LSU Beef cattle 215(2) 20.08 EUR/LSU Sheep 215(3) 15.00 EUR/LSU Laying hens 215(4) 5.83 EUR/LSU Broilers 215(5) 8.83 EUR/LSU Pigs 215(6)	100% 100% 100% 100% n.d. 100%	Horizontal	0
	SCO Measure: Animal Health and Welfare Programme (AHWM)					

Country	Name of submeasure	Payment differentiation	Level of payments		Targeting	Previous existence of the submeasure
			EUR/unit	% of calculated		
		No	Compulsory actions: AHWM Plan: Proactive scheme for treatments 270 EUR/farm AHWM Plan: Proactive scheme for vaccines and routine medications 120 EUR/farm Voluntary options Benchmarking 615 EUR/farm Biosecurity: Biosecurity plan 75 EUR/farm Fence maintenance ⁴ 0.15 EUR/meter Sampling 255 EUR/farm Forage analysis 195 EUR/farm	75% ⁵	Nationwide	↑ ⁶ (+16%), 233.25 EUR/farm ↑ (+23%), 97.5 EUR/farm ↑ (+28%), 480 EUR/farm ↑ (+67%), 45 EUR/farm = (0%), 0.15 EUR/metre ↑ (+10%), 232.5 EUR/farm ↑ (+18%), 165 EUR/farm

⁴ Proposed annual standard cost for fence maintenance per meter.

⁵ The Scottish Rural Development Plan will only meet 75% of the eligible costs under the AHWM with the farmer being expected to contribute the remaining 25%. The same budgetary rule was applied in the previous programme.

⁶ The increase in the payments reflects adjustments in the rates for labor and veterinary services.

Table A.2 Animal welfare payments differentiation in Italy, EUR/LSU

Commitment Typology Species	Improvement of farm and private management	Improvement of breeding and stalling systems	Improvement of environmental monitoring	Improvement of feeding and watering	Improvement of cleanliness, health and behavioural aspects
Dairy cattle					
Production of Parmigiano-Reggiano in mountain areas	15.17	91.05	75.87	45.52	75.87
Production of Parmigiano-Reggiano in the plain	9.82	58.95	49.12	29.48	49.12
Production of Grana Padano / production of drinking milk	10.12	60.77	50.65	30.39	50.65
Beef cattle					
Calves for fattening	3.80	22.75	18.96	11.38	18.96
Heifers for fattening	12.13	72.79	60.66	36.40	60.66
Breeding heifers	9.68	58.11	48.42	29.05	48.42
Sheep (dairy or fattening)	4.01	24.10	20.08	12.06	20.08
Laying hens	3.00	18.00	15.00	9.00	15.00
Broilers	1.17	7.00	5.83	3.50	5.83
Pigs	1.76	10.58	8.83	5.30	8.83

Payments for commitments already undertaken (before 2007) on a voluntary basis (without any premium) must be reduced of a 50% rate. Total payment per LSU, calculated in the first year of committing, will be annually reduced of a 20% rate.

Annex 3

Table A.3 Overview of relevant commitments and contractual obligation

Commitments and contractual obligation	DE	ES _{CL}	FI	GR	IT _{ER}	SCO
To keep stock rates of more than 0.3 and less than 2.0 LSU per ha agricultural area	√	-	-	-	-	-
To provide for each animal a stable which transparent area is at least: <ul style="list-style-type: none"> • 3 % of the total stable area for finishing pigs, breeding pigs and piglets • 5 % of the stable area for other animal species 	√	-	-	-	-	-
To provide for each animal at minimum following usable stable areas: <ul style="list-style-type: none"> • dairy cows: 5.0 m² per animal, • beef and breeding cattle except suckler-cow production: <ul style="list-style-type: none"> • up to an age of 8 months: 3.5 m² per animal • from an age of 9 months: 4.5 m² per animal • if considered age groups do not deliver adequate results, federal states can differentiate usable stable areas according to weights of animals 	√	-	-	-	-	-
Breeding and finishing pigs need an unrestricted usable area which is at least 20% bigger than compulsory pursuant to § 24 paragraph 2 of the nature conservation and animal husbandry regulation	√	-	-	-	-	-
Young sows and sows: From 4 weeks after insemination till presumed farrow: need an unrestricted area which is at least 20% bigger than compulsory pursuant to § 25 paragraph 2 of the animal welfare and farm animal regulation	√	-	-	-	-	-
Boars need an unrestricted usable area which is at least 20% bigger than compulsory pursuant to § 20 of the animal welfare and farm animal regulation	√	-	-	-	-	-
To calculate the non-perforated size of usable stable area such that all animals can lay down simultaneously	√	-	-	-	-	-
To provide for each dairy cow, beef and breeding cattle one basic fodder box or in case of ad libitum feeding the following animal-feeding place relations: <ul style="list-style-type: none"> • dairy cows and breeding cattle: animal-feeding place relation of 1.2 to 1 • beef cattle: animal-feeding place relation of 1.5 to 1 	√	-	-	-	-	-
To provide each animal a minimum of partly perforated or sliced floored outdoor area: <ul style="list-style-type: none"> • dairy cows: 3.0 m² per animal • beef and breeding cattle apart from suckler cow husbandry: <ul style="list-style-type: none"> • up to an age of 8 months 2 m² per animal • from an age of 9 months 2.5 m² per animal • for breeding and finishing pigs: <ul style="list-style-type: none"> • up to an age of 4 months (respectively up to a weight of 60 kg) 0.4 m² per animal • from an age of 5 months (respectively from a weight of 60 kg) 0.6 m² per animal • for young sows and sows 1.3 m² per animal • for boards 6.0 m² per animal 	√	-	-	-	-	-
To provide sufficient padded straw beddings, for pigs straw is not allowed to be chaffed	√	√	-	-	-	-

Commitments and contractual obligation	DE	ES _{CL}	FI	GR	IT _{ER}	SCO
Minimum available area of 825 cm ² per cage and hen.		√				
The farmer must conclude a written health care agreement with a veterinarian. The agreement must cover the following factors: the sector-specific content of national-level health care work, the number of visits by the veterinarian and their content, and the utilisation and assignment of information.	-	√	√	-	-	-
The veterinarian must make a health care visit to all cattle farms at least once a year. A written document must be prepared for each visit.	-	-	√	-	-	-
A written health care plan must be prepared on the basis of the visit(s), in which the required correction and development measures are agreed upon. The plan must be updated annually. The veterinarian shall monitor the implementation of the plan.	-	-	√	-	-	-
The farm must comply with orders separately issued by competent authorities concerning farm-level disease protection and the bringing of animal matter and feed to the farm.	-	√	√	-	-	-
Cattle farms must be free from salmonella and BVD infections; farms that sell animals to be reared must also be free from tinea capitis infections when the farmer applies for support for the first time. On the part of the tinea capitis infections the requirement does not concern the fresh milk or young calf rearing units. If any of the aforementioned infections are found on the farm during the period of the commitment, the farmer undertakes to eradicate the infection from the farm or operate otherwise in that case in accordance with accepted principles and practices. In addition, measures identified during the health care visits are required to be taken to prevent the spreading of faecal pathogens among cattle.	-	√	√	-	-	-
Systematic production monitoring must be carried out on the farms. Written feeding plans that are based on calculations and which take into consideration the growth and production phase of the animals must be complied with when feeding the animals. All animals must have access to water of good quality and in sufficient quantities at all times. The water flow must be measured during the health care visit. Animals must not be kept in isolation unless this is required by illness, injury, or aggressive behaviour or for other justified and acceptable reasons or unless otherwise required in the additional conditions.	-	-	√	-	-	-
The cattle farmer must also comply with the following conditions: Cattle to be reared for fattening, beef-breed heifers to be reared as suckler cows, and suckler cows must not be kept tethered in a stall unless this is required by a temporary, justified and acceptable reason. Bovines must have access to roughage in sufficient quantities that is suitable to their age and production phase. If the place in which cattle is kept is provided with a mechanical ventilation, feeding, watering, or similar system on which animal welfare is dependent, the farm must have a written plan for an efficient backup system in the case of equipment failures. The farms must have a backup system for the production of electricity in the case of blackouts, such as an aggregate that produces enough electricity to keep mechanical ventilation running and to operate the milking, watering, feeding, and manure removal systems when necessary.	-	-	√	-	-	-
Provision of water and nourishment in accordance to specific animal natural needs	-	-	-	√	-	-
Appropriate stabling conditions including space requirements, dry litter, natural light etc.	-	√	-	√	-	-
Accessibility to outdoors	-	-	-	√	-	-
Cease systematic amputations, isolation or permanent fastening.	-	-	-	√	-	-
Prevention against pathological factors.	-	-	-	√	-	-
Animal welfare payments are also subject to cross-compliance, which includes measures that relate to public health, the animal health and animal welfare must be taken into account and followed by livestock producers	-	-	-	√	-	-

Commitments and contractual obligation	DE	ES_{CL}	FI	GR	IT_{ER}	SCO
Commitments regarding the typology A ⁷ must be undertaken since the first year, together with at least one other commitment of other typologies.	-	-	-	-	√	-
Every commitment under this submeasure lasts five years.	-	√	-	-	√	√
In order to receive payments for previously undertaken commitments, farmers must undertake at least one new commitment.	-	-	-	-	√	-
Stated LSU at first year must be maintained all five years long.	-	-	-	-	√	-
AHWM Plan - To implement a proactive scheme for the use of treatments, including guidance on the use of veterinary advice and treatment	-	-	-	-	-	√
AHWM Plan - To implement a proactive scheme for the use of vaccines and routine medications	-	-	-	-	-	√
Benchmarking - To undertake additional inspection and monitoring to collate performance indicators and analyse all significant animal health and welfare related observations arising from inspections and implement an action plan to measure performance	-	-	-	-	-	√
Biosecurity: <ul style="list-style-type: none"> • To produce a biosecurity plan to ensure the safe integration of new stock on farm; • To minimise the risk of spreading disease by maintaining fences around isolation areas to enhance biosecurity levels and to prevent diseases from entering the herd/flock 	-	-	-	-	-	√
Sampling - To undertake sampling to identify diseases / conditions such as twin lamb disease or copper deficiency, which may be present on farm having a negative impact on animal health and welfare and take informed control measures to address conditions	-	-	-	-	-	√
Forage analysis – To analyse forage and obtain professional nutritional advice and implement advice from report	-	-	-	-	-	√

√ where the commitment or the obligation are required.

⁷ Improvement of farm and private management.

Annex 4

Table A.4 Overview of land use / management changes

Changes	DE	ES _{CL}	FI	GR	IT _{ER}	SCO
Higher labour requirements for providing and renewing straw beddings	√	-	-	-	√	-
Costs for straw	√	-	-	-	√	-
The farmer must conclude a written health care agreement with a veterinarian	-	-	√	-	-	-
The veterinarian must make a health care visit to all cattle farms at least once a year	-	-	√	-	-	-
Health care plan must be prepared on the basis of the visit and updated annually	-	-	√	-	-	-
The farm must comply with orders issued by competent authorities concerning farm-level disease protection and bringing animal matter and feed to the farm	-	-	√	-	-	-
The farmer must operate in accordance with accepted principles and practices to prevent salmonella and tinea capitis infections	-	-	√	-	-	-
Preventing the spreading of faecal pathogens among cattle	-	-	√	-	-	-
Systematic production monitoring must be carried out on the farms	-	-	√	-	-	-
Feeding plans which are based on calculations and which take into account the growth and production phase of the animals must be complied with when feeding the animals	-	-	√	-	-	-
Water flow must be measured during the health care visit	-	-	√	-	-	-
Animals must not be kept in isolation unless necessitated by illness, injury, or aggressive behaviour	-	-	√	-	-	-
If the place in which the cattle is kept is provided with a mechanical ventilation, feeding, watering, or similar system, the farm must have a written plan for an efficient backup system in the case of equipment failures	-	√	√	-	-	-
The farms must have a backup system for the electricity production in the case of blackouts, which produces enough electricity to keep mechanical ventilation running and to operate milking, watering, feeding, and manure removal systems	-	√	√	-	-	-
Transportation of water near the area where the animals are kept to increase water accessibility.	-	√	-	√	-	-
Continuous change of litter.	-	-	-	√	-	-
Reduction of livestock density in order to increase available space.	-	√	-	√	-	-
Shed staff: Acquisition of proper <i>know-how</i>	-	√	-	-	√	-
Farm management: Registering of controls and installations maintenance	-	-	-	-	√	-
Breeding system: Shifting from permanent housing to pasture raising	-	-	-	-	√	-
Stalling system:	-	-	-	-	√	-
<ul style="list-style-type: none"> • Shifting from stall housing to loose housing • Shifting of group housing from slatted floor to litter for calves (more than 8 weeks old) 	-	-	-	-	√	-
Stalling areas and parameters:	-	-	-	-	√	-
<ul style="list-style-type: none"> • Group housing on litter for calves, or 5 % enlargement of single boxes • 10% increase of unitary housing areas • Creation of outdoor shaded paddocks 	-	-	-	-	√	-

Changes	DE	ES_{CL}	FI	GR	IT_{ER}	SCO
Ventilation: Improvement of air entrance and going out systems (chimneys, licks, etc.)	-	√	-	-	√	-
Cooling: <ul style="list-style-type: none"> • Heat insulation of shed roof and shading of long sides • Installation of cooling systems 	-	-	-	-	√	-
Feeding facilities: Reconstruction of worsened mangers and proportioning of their dimensions	-	-	-	-	√	-
Watering facilities: <ul style="list-style-type: none"> • Reconstruction of loose housing watering places increase of their number • Analysis of water quality and potability and adoption of filtering and disinfection systems 	-	-	-	-	√	-
Sanitary conditions: <ul style="list-style-type: none"> • Creation of isolation areas for injured or sick animals • Adoption of plans for the monitoring of mastitis, flies and rodents, and scheduling of veterinary aids 	-	-	-	-	√	-
5 hours of additional skilled farm labour required to provide information for the treatment scheme	-	-	-	-	-	√
2 hours of additional farm management required to coordinate the development of the treatment scheme with the vet	-	-	-	-	-	√
3 hours of additional veterinary service required to develop the scheme	-	-	-	-	-	√
5 hours of additional skilled farm labour required to provide information required to develop the scheme for vaccines	-	-	-	-	-	√
1 hour of additional farm management required to coordinate the development of the vaccine scheme with the vet	-	-	-	-	-	√
1 hour of additional veterinary service required to develop the scheme	-	-	-	-	-	√
7 hours of additional farm management required to develop an action plan for biosecurity measures.	-	-	-	-	-	√
Materials required to maintain fences around specific areas for stock isolation	-	-	-	-	-	√
Additional labour required to maintain fences	-	-	-	-	-	√
5 hours of additional skilled farm labour required to take samples and conduct control measures	-	-	-	-	-	√
1 hour of additional farm management required to coordinate sampling and control measures on the farm	-	-	-	-	-	√
2 hours of additional veterinary service	-	-	-	-	-	√

✓ where are the land use or the changes in management necessary

Annex 5

Table A.5 Process of payment calculation for Dairy cows in free stall barns with non- or partly perforated floors with outdoor run-outs and littered stalls – DE

Contractual obligation	Land use / management changes	Additional cost (EUR/LSU)	Income foregone (EUR/LSU)	Transaction costs (EUR/LSU)
Movement areas	Increase of movement areas by 3% caused by destocking	15.0	-	-
Outdoor run	Outdoor run outs additional labour tasks (mucking out) 1.3 man hours/LSU	16.25	-	-
Littered laying areas	Littered laying areas (straw beddings) (0.3 kg straw per animal per day): <ul style="list-style-type: none"> • additional labour tasks (littering and mucking out) 0.7 man hours/LSU • additional costs (straw production and storing) 	8.75 13.5	-	-
Comfortable laying area	Comfortable laying area (litter, saw dust) additional labour tasks (to litter, to clean or muck out)	0	-	-
Total	x	53.5	-	-
Approved payment (EUR/LSU)		54		

Reference method: Free stall barn with cubicle loose boxes with perforated gang alleys, two cubical loose box columns with rubber blankets and without litter, 4.85 m² movement areas per cow. Supported method: Stable with partly perforated areas, increase of movement area per cow, litter in cubicle barn and outdoor run outs.

Table A.6 Process of payment calculation for Breeding cattle in free stall barns with non- or partly perforated floors with outdoor run-outs and littered stalls – DE

Contractual obligation	Land use / management changes	Additional cost (EUR/LSU)	Income foregone (EUR/LSU)	Transaction costs (EUR/LSU)
Movement areas	Increase of movement areas by 5% caused by destocking	11.0	-	-
Outdoor run	Outdoor run outs additional labour tasks (mucking out) 1.3 man hours/LSU	16.25	-	-
Littered laying areas	Littered laying areas (straw beddings) (0.3 kg straw per animal per day): <ul style="list-style-type: none"> • additional labour tasks (littering and mucking out) 0.7 man hours/LSU • additional costs (straw production and storing) 	8.75 16.6	-	-
Comfortable laying area	Comfortable laying area (litter, saw dust) additional labour tasks (to litter, to clean or muck out)	0	-	-
Total	x	52.6	-	-
Approved payment (EUR/LSU)		53		

Reference method: Free stall barn with cubicle loose boxes with perforated gang alleys, two cubical loose box columns with rubber blankets and without litter. Supported method: Stable with partly perforated areas, increase of movement area per animal, littering cubicle barn with 0.5 kg straw per LSU and day and outdoor run outs.

Table A.7 Process of payment calculation for Beef cattle in free stall barns with non- or partly perforated floors with outdoor run-outs and littered stalls – DE

Contractual obligation	Land use / management changes	Additional cost (EUR/LSU)	Income foregone (EUR/LSU)	Transaction costs (EUR/LSU)
Movement areas	Increase of movement areas by 14% caused by destocking	0	-	-
Outdoor run	Outdoor run outs additional labour tasks (mucking out) 1.3 man hours/LSU	16.25	-	-
Littered laying areas	Littered laying areas (straw beddings) (0.3 kg straw per animal per day): <ul style="list-style-type: none"> • additional labour tasks (littering and mucking out) 1 man hour/LSU • additional costs (straw production and storing) 	12.5 154	-	-
Comfortable laying area	Comfortable laying area (litter, saw dust) additional labour tasks (to litter, to clean or muck out)	0	-	-
Total	x	182.8	-	-
Approved payment (EUR/LSU)		183		

Reference method: Beef fattening house with fully slatted floors, animal-fodderplace relation 1:1, laying areas without rubber blankets.

Supported method: Deep litter system barn with run-outs, 5kg straw per LSU and day.

Table A.8 Process of payment calculation for Finishing pigs in free stall barns with non- or partly perforated floors with outdoor run-outs and littered stalls – DE

Contractual obligation	Land use / management changes	Additional cost (EUR/animal)	Income foregone (EUR/LSU)	Transaction costs (EUR/LSU)
Littered laying areas	Littered laying areas (straw beddings) (0.3 kg straw per animal per day): <ul style="list-style-type: none"> • additional labour tasks (littering and mucking out) 0.2 man hours/animal • additional costs (straw production and storing) 0.45 kg/day/animal (155 kg/animal) 	2.5 12.4	-	-
Outdoor run	Outdoor run outs additional labour tasks (mucking out) 0.15 man hours/LSU	1.9	-	-
Total	x	16.8 EUR/animal 129.2 EUR/LSU (LSU/animal = 0.13)	-	-
Approved payment (EUR/LSU)		129		

Reference method: Barn with fully slatted or partly perforated floors, without litter. Supported method: Barn with partly perforated floors, relax boxes, straw beddings and outdoor run outs.

Table A.9 Process of payment calculation for Breeding pigs in free stall barns with non- or partly perforated floors with outdoor run-outs and littered stalls – DE

Contractual obligation	Land use / management changes	Additional cost (EUR/animal)	Income foregone (EUR/LSU)	Transaction costs (EUR/LSU)
Littered laying areas	Littered laying areas (straw beddings) (0.3 kg straw per animal per day): <ul style="list-style-type: none"> • additional labour tasks (littering and mucking out) 1.16 man hours/animal • additional costs (straw production and storing) 1 kg/day/animal (365 kg/animal) 	14.5 29.2	-	-
Outdoor run	Outdoor run outs additional labour tasks (mucking out) 0.3 man hours/LSU	3.8	-	-
Total	x	47.5 EUR/animal 158.2 EUR/LSU (LSU/animal = 0.3)	-	-
Approved payment (EUR/LSU)		158		

Reference method: Barn for insemination sows with fully slatted or partly perforated floors, without litter. Supported method: Barn with partly perforated floors, straw beddings and outdoor run-outs.

Table A.10 Calculation of payments for the animal welfare payment basic conditions – cattle farms - FI

Contractual obligation	Land use / management changes	Additional cost (EUR/LSU)	Income foregone (EUR/LSU)	Transaction costs (EUR/LSU)
Health care plan	Health care plan	2.81	3.69	2.92 (20% of Additional Costs and Income Foregone)
Disease protection	Farm-level disease protection and bringing animal matter and feed to the farm	1.03	1.02	
Prevention of pathogens	Preventing the spreading of faecal pathogens	1.23	7.16	
Production monitoring	Systematic production monitoring	0.20	5.72	
Feeding	Written feeding plans	10.78	2.80	
Watering	Water flow measurement	11.42	0.08	
Absence of isolation	Animals not kept in isolation	-	3.03	
Equipment	Written plan for backup system in case of ventilation, feeding or watering equipment failure	-	3.43	
Testing and maintenance	Testing and maintenance costs of an aggregate unit	-	1.02	
Health care	Health care agreement	0.33	-	
Health care	Health care visits	5.25	-	
Total v)	x	33.05	27.95	
Approved payment (EUR/LSU)		17.50		

GR: The management practices to be subsidised include the following:

- Transportation of water near the area where the animals are kept to increase water accessibility.
- Continuous change of litter.
- Reduction of livestock density in order to increase available space.

Increased costs of the two former and income forgone of the latter are to be accounted for.

Table A.11 Process of payment calculation for animal welfare - IT_{ER}

Contractual obligation	Land use / management changes	Additional cost (EUR/LSU)	Income foregone (EUR/LSU)	Transaction costs (EUR/LSU)
See Table 19	Purchase of feed and fodder	58.74	-	-
	Variable costs for farm fodder	4.41	-	-
	Labour costs	135.48	-	-
	Expenditure for energy and water	18.58	-	-
	Know-how	1.01	-	-
	Veterinary costs	-21.73 (savings)	-	-
Total	x	196.49	-	-
Approved payment (EUR/LSU)		196.49		

Table A.12 Process of payment calculation for animal welfare – IT_{ER}*

Improvement of farm and private management	Improvement of breeding and stalling systems	Improvement of environmental monitoring	Improvement of feeding and watering	Improvement of cleanliness, health and behavioural aspects
5%	30%	25%	15%	25%
9.82 EUR/LU	58.95 EUR/LSU	49.12 EUR/LSU	29.48 EUR/LSU	49.12 EUR/LSU

* Additional costs per LSU per ha have been estimated as follows: +5% for feeding costs, +15% for labour costs, +10% for energy costs, -15% for veterinary and sanitary costs; moreover, EUR100 per farm have been considered as costs for acquisition and transfer of know-how. Calculated payments (maximum levels) must be reduced according to the different importance conferred to each improvement typology, so to define a “base premium” for each of them. Transaction costs regard acquisition and transfer of know-how necessary for the implementation of the scheme, and have been estimated at 100 EUR per farm.

Table A.13 Calculation of payments for the AHWM Plan - compulsory actions i) To implement a proactive scheme for the use of treatments, including guidance on the use of veterinary advice and treatment & ii) To implement a proactive scheme for the use of vaccines and routine medications - SCO

Contractual obligation	Land use / management changes	Additional cost (EUR/farm)	Income foregone (EUR/farm)	Transaction costs (EUR/farm)
i) To implement a proactive scheme for the use of treatments, including guidance on the use of veterinary advice and treatment	Skilled farm labour 5 hours (11.73 EUR/hour)	58.65	-	-
	Farm management 2 hours (13.77 EUR/hour)	27.54	-	-
	Veterinary time 3 hours (92.37 EUR/hour)	277.11	-	-
Total i)	x	363.30	-	-
Total i) (75% contribution)	x	272.47	-	-
ii) To implement a proactive scheme for the use of vaccines and routine medications	Skilled farm labour 5 hours (11.73 EUR/hour)	58.65	-	-
	Farm management 1 hours (13.77 EUR/hour)	13.77	-	-
	Veterinary time 1 hours (92.37 EUR/hour)	92.37	-	-
Total ii)	x	164.79	-	-
Total ii) (75% contribution)	x	123.60	-	-
Total i)+ii)	x	528.09	-	-
Total i)+ii) (75% contribution)	x	396.07	-	-
Approved payment (EUR/farm)		390		

Table A.14 Calculation of payments for the AHWM Plan for iv) Biosecurity - To produce a biosecurity plan to ensure the safe integration of new stock on farm and to minimise the risk of spreading disease by maintaining fences around isolation areas to enhance biosecurity levels and to prevent diseases from entering the herd/flock - SCO

Contractual obligation	Land use / management changes	Additional cost (EUR/farm or EUR/metre)	Income foregone (EUR/farm)	Transaction costs (EUR/farm)
To produce a biosecurity plan to ensure the safe integration of new stock on farm	Farm management 7 hours (13.77 EUR/hour)	96.39 EUR/farm	-	-
Total	x	96.39 EUR/farm	-	-
Total (75% contribution)	x	72.30 EUR/farm	-	-
To minimise the risk of spreading disease by maintaining fences around isolation areas to enhance biosecurity levels and to prevent diseases from entering the herd/flock (fence maintenance)	Material cost per metre of fence	2.25 EUR/metre	-	-
	Labour cost per metre of fence	2.40 EUR/metre	-	-
Total	20 year maintenance cost ⁸	4.65 EUR/metre		
	Annual maintenance cost	0.24 EUR/metre	-	-
Total (75% contribution)	x	0.18 EUR/metre	-	-

⁸ Fences are expected to last 20 years, see under f) for further explanation.

Proposed amount of support for biosecurity plan (EUR/farm)	75
Proposed amount of support for fence maintenance EUR/metre (one off payment)	0.15

Table A.15 Calculation of payments for the AHWM Plan -for v) Sampling - To undertake sampling to identify diseases / conditions such as twin lamb disease or copper deficiency, which may be present on farm having a negative impact on animal health and welfare and take informed control measures to address conditions - SCO

Contractual obligation	Land use / management changes	Additional cost (EUR/farm)	Income foregone (EUR/farm)	Transaction costs (EUR/farm)
To undertake sampling to identify diseases / conditions which may be present on farm having a negative impact on animal health and welfare and take informed control measures to address conditions	Skilled farm labour 5 hours (11.73 EUR/hour)	58.65	-	-
	Farm management 1 hours (13.77 EUR/hour)	13.77	-	-
	Veterinary time 3 hours (92.37 EUR/hour)	277.11	-	-
Total v)	x	349.53	-	-
Total v) (75% contribution)	x	262.16	-	-
Approved payment (EUR/farm)		255		