Final report

on the assessment of the

Geographical BSE-Risk (GBR)

of

LATVIA - 2002

27 June 2002

NOTE TO THE READER

Independent experts have produced this report, applying an innovative methodology by a complex process to data that were supplied by the responsible country authorities. Both, the methodology and the process are described in detail in the final opinion of the SSC on "the Geographical Risk of Bovine Spongiform Encephalopathy (GBR)", 6 July 2000 and its update of 11 January 2002. These opinions are available at the following Internet address:
<http://europa.eu.int/comm/food/fs/sc/ssc/outcome_en.html>

This report, and the opinion of the SSC based on it, is now serving as the risk assessment required by the TSE-Regulation EU/999/2001 for the categorisation of countries with regard to their BSE-status. The final BSE-status categorisation depends also on other conditions as stipulated in annex II to that TSE-Regulation.

1. DATA

- The available information was sufficient to carry out the qualitative assessment of the GBR. However, the lack of most information concerning the period before 1991 adds to the remaining uncertainty. Reasonable worst case assumption are used in cases were the available information was not adequate.

Sources of data

Country dossier (CD) consisting of:

- Information provided from the Country authorities and the Country expert in 1998/1999/2000/2001 and 2002 to the European Commission in the context of the GBR assessment and the reporting on TSE-surveillance.

Other sources:

- EUROSTAT data on export of “live bovine animals” and on ”flour, meal and pellets of meat or offal, unit for human consumption; greaves” (customs code 230110), covering the period 1980 to 2001.
- UK-export data (UK) on "live bovine animals" (1980-1996) and on "Mammalian Flours, Meals and Pellets", 1988-1996. As it was illegal to export mammalian meat meal, bone meal and MBM from UK since 27/03/1996, exports indicated after that date under customs code 230110 should only have included non-mammalian MBM.
- Revised UK export data of August 2001.
- Export data from Cyprus, the Czech Republic, Estonia, Hungary, Lithuania, Slovenia and Switzerland.

2. EXTERNAL CHALLENGES

2.1 Import of cattle from BSE-Risk[1] countries

According to the CD, no live cattle were imported into Latvia from the UK. This is confirmed by UK and Eurostat export data.

Latvia also indicated imports of live breeding cattle from other BSE-risk countries. With regard to EU-Member States these are largely in line with Eurostat export data. Latvia has also imported 84 breeding cattle from Belarus and 37 from Sweden.

Estonia and Lithuania (both GBR III countries) have reported significant exports of cattle to Latvia which have been confirmed by the Latvian authorities. All cattle imported from Lithuania were immediately slaughtered. Of all cattle imported from Estonia only 153 are still alive and used for breeding. No information is provided about the age of these imported cattle at slaughter but meat cattle are normally slaughtered at 14 to 18 months of age.

[1] BSE-Risk countries are all countries already assessed as GBR III or IV or with at least one confirmed domestic BSE case.

Country	Data	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	0	1	Total
Denmark	CD																	1		20	5	65		91
	other																	1		20	5	65		91
Estonia	CD																							0
	other												25			1	15			6	75		657	779
Finland	CD																							0
	other																4							4
France	CD																			14				14
	other																			14				14
Germany	CD																7	58	86	66	47	33		297
	other																7	58	86	66	47	33		297
Lithuania	CD																							0
	other																		2010		204	8135	4202	14551
Netherlands	CD																			500				500
	other																			500				500
UK	CD																							
	other																							
ALL TOTALS																								
non UK	CD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	59	86	600	52	98	0	899
	other	0	0	0	0	0	0	0	0	0	0	0	25	0	0	1	26	59	2096	606	331	8233	4859	16236
UK	CD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 1: Live cattle imports into Latvia (CD) and corresponding exports from BSE-Risk countries. Source for export data: Eurostat export statistics and, where available, export statistics from other BSE-Risk countries. Note: Only imports in Risk periods (grey shaded) are taken into account for assessing the external challenge. Risk periods are defined according to the SSC opinion of January 2002.

2.2 Import of MBM[2] or MBM-containing feedstuffs from BSE-Risk countries

Table 2 gives an overview of the MBM-imports into Latvia, as provided in the country dossier and compares it with the Eurostat and UK-export statistics. No data are available prior to 1992.

According to Eurostat, 3,522 tonnes of MBM were exported since 1992 from BE, NL, DK, FIN, DE and IT to Latvia. No MBM importation occurred from UK.

There is some discrepancy in the figures provided by the CD and Eurostat MBM export data. Latvia has stated that this discrepancy is due to lack of sufficient records in their database to reflect the real imports of MBM. Errors in codification of imports and re-export of certain amounts (transit operations) might also add to the discrepancies. The available export statistics are therefore used for this assessment.

The MBM imported in 1998 – 2000 to Latvia, according to the CD, is used in pet food, swine feed, fish feed, poultry feed, or feed for sheep or goats but data on amounts of MBM used in these lines of production are not gathered in Latvia.

Latvia also imported significant amounts of compound feed and pet food from the UK and other BSE-risk countries.

[2] For the purpose of the GBR assessment the abbreviation "MBM" refers to rendering products, in particular the commodities Meat and Bone Meal as such; Meat Meal; Bone Meal; and Greaves. With regard to imports it refers to the customs code 230110 "flours, meals and pellets, made from meat or offal, not fit for human consumption; greaves".

Country	Data	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	0	1	Total
Belgium	CD																			500	144			644
	other																167	609	335	630	168			1909
Denmark	CD																				150			150
	other															40	44	77	50	65	168	68		512
Finland	CD																							0
	other																		48			136		184
Germany	CD																							0
	other																	12	7	14	48	7		88
Italy	CD																							0
	other																				42			42
Netherlands	CD																				23	45		68
	other															19	650				72	46		787
UK	CD																							0
	other																							0
TOTALS																								
non UK	CD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	317	45	0	862
	other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	861	698	439	709	498	258	0	3522
UK	CD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2: MBM imports [tons per year] into Latvia (CD) and corresponding exports from BSE-Risk countries. Source for export data: Eurostat export statistics and, where available, export statistics from other BSE-Risk countries. Note: Only imports in Risk periods (grey shaded) are taken into account for assessing the external challenge. Risk periods are defined according to the SSC opinion of January 2002. Latvia was only able to provide global figures for imports from BE/LUX, NL and DK and it is not clear why these are so much lower than the corresponding Eurostat export data.

2.3 Overall assessment of the external challenge

The level of the external challenge that has to be met by the BSE/cattle system is estimated according to the guidance given by the SSC in its final opinion on the GBR of July 2000 (as updated in January 2002).

- Live cattle imports: No data were available for the period before 1991. In total Latvia imported since 1991 about 17,500 cattle from BSE risk countries, mainly Lithuania. This would represent a significant external challenge but a large fraction of the imports were for immediate slaughter at rather young age. The imports between 1991 and 1995 therefore remained "negligible" and the external challenge resulting from cattle imports was "low" between 1996 and 2000.

MBM imports: The country dossier only provided data for MBM imports since 1998, indicating 862 tons. Eurostat and other export data amount to 3.522 tons of "MBM" that were exported since 1992 to Latvia from BSE risk countries. This represents a high external challenge. The external challenge resulting from MBM-imports was assessed as moderate between 1991 to 1995 and high during 1996-2000. This assessment takes account of the information available on the use made of it in the country, however, this information was not confirmed.

External Challenge experienced by LATVIA				
External challenge		***Reason for this external challenge***		
Period	**Overall Level**	**Cattle imports**	**MBM imports**	**Comment**
1980 to 1985	**Significant***	Unknown	Unknown	Reasonable worst case assumption
1986 to 1990				
1991 to 1995	**Moderate**	Negligible	Moderate	
1996 to 2000	**High**	Low	High	

Table 3: External Challenge resulting from live cattle and/or MBM imports from the UK and other BSE-Risk countries. The Challenge level is determined according to the SSC-opinion on the GBR of July 2000 (as updated in January 2002). *Significant because it is assumed that some external challenge was experienced also before the independence of Latvia.

On the basis of the available information, the overall assessment of the external challenge is as given in the table above. It indicates that Latvia was exposed to an external challenge that made it likely that the BSE-agent entered the country, particularly in the period since 1996 and mainly due to MBM imports. The level of the external challenge before 1991 cannot be estimated and might have been low.

No data were available for the period before 1992 and a reasonable worst case assumption was made that it is likely that the BSE-agent entered the country's territory already at that time. The Latvian authorities regard this probability to be very low but do not convincingly reason for this assumption.

3. STABILITY

3.1 Overall appreciation of the ability to avoid recycling of BSE infectivity, should it enter processing

Feeding

Feed bans

- MBM was banned from ruminant feed as early as 1990 (Order of the Chief State Veterinary Officer of former USSR N° 60 of 8 June 1990) prior to the country independence. Only proteins of vegetable origin (soy meal, sunflower meal, rape seed meal) and products like milk, skim milk powder, etc. were fed to cattle as only registered feed can be used in the country. The registration includes verification of instructions to users, information on usage limitations and content.
- An official prohibition of the use of MBM for all farmed except fur animals is implemented since 1/4/2001. All animal protein (incl. fish meal (2/5/2001), dicalcium phosphate (2/5/2001) and poultry offal meal (1/4/2001)) is banned from cattle feeding, except milk proteins.

Control of Feed bans and cross-contamination

- No information on controls of the order of 1990 and result thereof was provided for the years before 1999. Since 1999 fed ban inspections (no further explanations were provided) have been carried out as indicated in the table below:

Year	In feed mills	At ports of entry	On farm	Other
1999	52	-	-	312
2000	74	-	-	506
2001	137	-	14	1710
Total	263	-	14	2528

Table 4: Feed ban inspections in Latvia. No explanation on "other" was made available.

- The control of the 2001 feed ban is done through the control in farms according to random visits, controls on feed producers, feed importers and feed distributors. This control is carried out at least 4 times per year to each producer.
- During 2001, 25 samples (1 per 7000 tons of cattle feed) were microscopically tested for presence of MBM, using the methods described in Council directive 98/88/EC. The samples were taken from animal feed for bovine animals (22) as well as from fish meal (3). All tests were negative.
- Among the 22 animal feed production plants existing on 15/01/2002, 13 are involved in ruminant feed production of which 11 also produce feed for monogastric animals. Of these 11, only three have two production lines. In 1999, 2000, and 2001 the situation was similar, 12 plants produced feed for ruminants and non-ruminants. No information was provided for the time before 1999.
- The Latvia feed producing plants were not required to maintain records of their production by animal species.
- For the period 1998 to 2001 the total feed production was 538,500 tonnes of which 40,000 tonnes were for ruminants.

Year	Ruminant feed	Pig feed	Poultry feed	Pet food	Other feed	Total
1999	13.8	108.3	70.9	0.4	2.6	196.0
2000	16.9	75.3	73.9	0.5	2.1	168.7
2001	9.3	83.4	78.2	0.8	2.1	173.8
Total 99-01	40.0	267.0	223.0	1.7	6.8	538.5
% of total	7.4%	49.6%	41.4%	0.3%	1.3%	100.0%

Table 5: Breakdown of feed production in Latvia by year and target species.

- Feed plants and trading companies are controlled at least once every three months by authorized feed surveillance inspectors in the 26 regions of the country and in the capital. Main emphasis is put on correct labeling of feed.
- Currently only feed mills with two production lines are according to the CD allowed to produce cattle feed as well as non-ruminant feed, which may include fish meal or dicalcium phosphate.
- However, there is no evidence provided that all mills have (and had in the past) sufficient measures in place to ensure full separation of cattle feed from other feeds, and that use of imported MBM for pet food did not take place in the same building and room as, for example, a poultry feed line.

Rendering

A rendering industry exists in Latvia but its capacity decreased since 1991. It is processing animal waste from the attached slaughterhouses, including SRM, and also (some) fallen stock. However, since the mid 90s and due to the small capacity of the rendering facilities most of the animal waste was buried not rendered.

The heat treatment is required to be 133°C at 3 to 4 bars for 20 to 30 min when a batch process is applied, or for 3 to 4 hours when a continuous process is applied (Order N° 64 of 12 March 2001). According to the CD, since April 2001, the continuous process has been used for mink and pet food only. No information was provided on the heat treatment applied before 12 March 2001 and on the use of the MBM produced.

Rendering is under official veterinary supervision and veterinary certificates are issued for each batch produced. However, evidence of the efficiency of these controls and the consistent and appropriate application of the required rendering conditions was not provided.

The CD provides the following data on rendering raw material: 110,777 cattle have been slaughtered in 2001 with a total weight of 30,267 tons (273.2 kg/animal). The slaughter products were 13,923 tons of meat for human consumption and 13,553 tons of animal waste. (It is not clear what happened to the remaining 2,791 tons.) The 13,553 tons of animal waste were disposed of as fur feed (9943 tons, including after rendering) or by burial or burning (together 3610 tons).

SRM and fallen stock

SRM is normally included in the raw material (slaughterhouse waste) entering rendering. The legislation on removal and destruction of SRM is expected to enter into force on 1/1/2003.

Fallen stock is mostly buried on farm but was partly also included in rendering. By Order of February 2001 fallen stock is banned from feed for farmed animals (except fur animals).

Conclusion on the ability to avoid recycling

In light of the above-discussed information it is concluded that the BSE-agent, should it have entered the territory of Latvia, could have been recycled and potentially amplified.

Since the total feed ban of 1/4/2001 the risk of recycling should be significantly reduced but it is not fully clear what happens with the MBM still produced in the country. It is also not evident that the measures taken to separate ruminant feed production from pet food or fur feed production are fully effective.

3.2 Overall appreciation of the ability to identify BSE-cases and to eliminate animals at risk of being infected before they are processed

Cattle population structure

Between 1991-2000 the total number of cattle decreased from 1.4 million heads in 1991 to 0.4 million heads in 2000. The CD indicated that the reason for this decrease is due to the implementation of the privatisation of the country livestock sectors. The average annual milk production in the country is 2000-3,898 kg/cow and it is 2000-4,108 kg/cow for intensive dairy farms.

Year	All cattle / all ages	Cows (adult female)	Dairy All ages	Fattening All ages
1991	1,383,000	531,000		
1992	1,144,000	482,000		
1993	678,000	351,000		
1994	550,000	311,900		
1995	539,900	291,800		
1996	504,600	275,300		
1997	478,100	265,800		
1998	434,300	242,000		
1999	445,111	205,600	252,457	192,654
2000	413,003	204,500	251,920	161,083
2001	403,591	204,500	257,101	146,490
2002	409,743		247,242	

Table 6: The cattle population of Latvia.

- Dairy cows are kept in average for 3.5 lactations (average slaughter age between 5 and 7 years). About 58,172 cows produce more than 3000 litres milk per year.
- Dairy cows receive grass forage (50%), complete cattle feed, self-mixed compound feed, vitamin and mineral premixes, soy meal, rapeseed meal, sunflower meal. (No details on the respective fractions were given).
- Beef cattle were fattened for 16-18 months in average (2001: 18.8 months in average).
- There are 88,980 dairy herds with an average size of 2.8 cows. About 95% of all farms have less than 10 cattle.
- The percentage of farms that manage cattle as well as other animals is approximately 80%, as indicated by the small average size of the dairy herds that makes it likely that most dairy farmers have also (some) pigs and poultry on their farm.

BSE surveillance

BSE has been notifiable in the USSR since 22/10/1990. This order established a "passive" surveillance and remained in force in Latvia after its independence. The 1992 law on veterinary medicine made all infectious animal diseases compulsory notifiable. Since 25/08/1998 the list of animal infectious diseases that are compulsory notifiable includes BSE and Scrapie. The clinical signs taken into account in Latvia are nervous symptoms and change in behaviour.

No compensation scheme is available at present. However, a compensation system is foreseen to be established.

Laboratory personnel have been trained in Russia, Germany (March 2001) and UK (1998). Training sessions are given to veterinarians and farmers in the country. A total of 563 licensed veterinary doctors and 673 authorised veterinarians participated to training sessions during 2000-2001. In addition 490 farmers were trained to recognise BSE-signs during 5 sessions organised in March 2001.

In case of a CNS suspicion, the farmer calls a veterinary surgeon who examines the animal and if necessary decides on compulsory slaughter in a slaughterhouse. The regional veterinary department is then informed. An official veterinary inspector collects a brain sample and sends it to the laboratory for examination. If rabies has been ruled out the sample would also be examined for BSE.

Regular testing of bovine animals for BSE, slaughtered or dead, started in 1997 parallel to rabies testing. All animals were negative.

Year	1991-1996	1997	1998	1999	2000	2001
N°	0	36	132	56	310	2147

Table 7: Number of domestic cattle brains examined for BSE, all animals were over 24 months of age. Since its beginning (1997) partly due to random, not-well targeted sampling. Since 2001, rapid test & histopathology, before only histopathology.

It is noted that no suspicion of BSE has ever been recorded in Latvia. No imported cattle brain has been examined for BSE before 2001.

Until 1997, a case would have been confirmed on the basis of clinical signs alone. Since 1997 confirmation has been based on clinical signs and histopathology. If positive results were to be obtained, confirmation from Weybridge (UK) reference laboratory would be sought. Since 2001 a rapid test is used (BIORAD) with histopathology as confirmation. The State Veterinary Medicine Diagnostics Centre (SVMDC) is the central veterinary laboratory in the country and it is the reference diagnostic laboratory for the OIE List A diseases as well as BSE.

Since 2001, the following categories of cattle are tested for BSE:

- Dead or slaughtered imported animals over 24 months;
- All clinical suspect animals;
- Bovine animals older than 24 months, not fit for human consumption condemned in post mortem inspection;
- Emergency slaughtered cattle older than 24 months;
- Dead animals (fallen stock) over 24 months;
- Normal slaughter, older than 30 months.

During 2001 a total of 2.147 cattle from these categories have been tested for BSE.
Two cows imported from the Netherlands and 10 cows from Denmark were tested in 2001. They were negative for BSE.

It is concluded that passive surveillance was not sufficient to ensure detection of clinical BSE cases before and after 1997: no BSE suspect was ever detected in Latvia. Active surveillance started in 2001 but the reported numbers are still rather low.

3.3 Overall assessment of the stability

For the overall assessment of the stability, the impact of the three main stability factors and of the additional stability factor, surveillance, has to be estimated. Again, the guidance provided by the SSC in its opinion on the GBR of July 2000 is applied.

Feeding

No information was provided on the control of the 1990 MBM-to-ruminant feed ban. At the same time it is clear that about 50% of the feed mills in the country produced ruminant and non-ruminant feed, often in the same production lines. Cross-contamination was therefore highly likely, even if economic consideration probably made deliberate inclusion of MBM into cattle feed unlikely. Feeding is therefore assessed as "**not OK**" until 2001. Since 1/4/2001 MBM is prohibited from being fed to any farmed animal, except fur animals, and some feed controls were carried out. Feeding is therefore considered **"OK"** since then.

Rendering

Since the mid 90s and due to the small capacity of the rendering facilities most of the animal waste was buried, not rendered. However, parts of the bovine material are rendered. The processes applied are said to be batch pressure cooking in compliance with 133/20/3 but no evidence of the appropriate application of these rendering conditions is provided. Rendering is therefore considered **"not OK"** throughout the reference period.

SRM-removal

SRM is included into rendering. Fallen stock was normally not rendered but buried, mainly because of the low capacity of the rendering industry. However, some fallen stock could well be rendered. SRM-removal is therefore considered **"not OK"** throughout the reference period. A ban of SRM from rendering is foreseen for 1/1/ 2003.

BSE surveillance

The surveillance for BSE in Latvia has been improved in the last year. Since 1997 it went from a passive system to an active one. Nevertheless the monitoring seems so far not reached the numbers necessary for a statistically significant evaluation. This will probably be rectified by the surveillance planned for 2002.

Stability of the BSE/cattle system in LATVIA over time					
Stability		Reasons			
Period	Level	Feeding	Rendering	SRM removal	BSE surveillance
1980 to 2000	Extremely unstable	Not OK	Not OK	Not OK	↓
2001-	Neutrally stable	OK			→

Table 8: Stability resulting from the interaction of the three main stability factors and the BSE surveillance. The stability level is determined according to the SSC-opinion on the GBR of July 2000. For the period before 1992 the reasonable worst case assumption is made that the stability was about the same as after independence.

On the basis of the available information it is concluded that the country's BSE/cattle system was extremely unstable from 1980 to 2000; i.e. it would have recycled and amplified BSE infectivity, should it have entered the system. With the feed ban of 2001 the system improved to neutrally stable. With the foreseen implementation of the SRM ban in 2003, the system will improve further. The existing BSE surveillance would not have been able to ensure detection of low levels of BSE-incidence.

4. CONCLUSION ON THE RESULTING RISKS

4.1 Interaction of stability and challenges

In conclusion, the stability of the Latvian BSE/cattle system in the past and the external challenges the system has coped with are summarised in the table below.
From the interaction of the two parameters "stability" and "external challenge" a conclusion is drawn on the level of "internal challenge" that emerged and had to be met by the system, in addition to external challenges that occurred.

INTERACTION OF STABILITY AND EXTERNAL CHALLENGE IN LATVIA			
Period	Stability	External Challenge	Internal challenge
1980 to 1990	Extremely unstable	Significant*	Likely and growing
1991 to 1995		Moderate	
1996 to 2000		High	
2001	Neutrally stable	?	Likely and constant

Table 9: Internal challenge resulting from the interaction of the external challenge and stability. The internal challenge level is determined according to guidance given in the SSC-opinion on the GBR of July 2000. *Significant because it is assumed that some external challenge was experienced also before the independence of Latvia.

An external challenge resulting from cattle import could only lead to an internal challenge once imported infected cattle were rendered for feed and this contaminated feed reached domestic cattle. Cattle imported for slaughter would normally be slaughtered at an age too young to harbour plenty of BSE infectivity or to show signs, even if infected prior to import. Breeding cattle, however, would normally live much longer and only animals having problems would be slaughtered younger. If being 4-6 years old when slaughtered, they could suffer from early signs of BSE, being approaching the end of the BSE-incubation period. In that case, they would harbour,

while being pre-clinical, as much infectivity as a clinical BSE-case. Hence cattle imports could have led to an internal challenge about 3 years after the import of breeding cattle (that are normally imported at 20-24 months of age) that could have been infected prior to import.
In the case of Latvia this implies that it is likely that the BSE-agent could have entered the country via cattle imports. After the independence significant imports started only in 1997 and most of these and later on imported cattle were either immediately slaughtered or are still alive. However, it cannot be excluded that BSE-infected cattle were imported to the territory of Latvia before the independence.

On the other hand imports of contaminated MBM, MM, BM or Greaves would lead to an internal challenge in the year of import, if fed to cattle. The feeding system is of utmost importance in this context. If it could be excluded that imported, potentially contaminated feedstuffs reached cattle, such imports might not lead to an internal challenge at all.
Also for MBM significant imports to Latvia only commenced in the mid 90s. But, as it is assumed that imported MBM could have reached cattle in the year of import, an internal challenge is likely to have resulted from these imports already in 1995. Since then imports continued and together with the possible recycling in the Latvian BSE/cattle system, it is assumed that an internal challenge is still likely and growing. However, it cannot be excluded that BSE-contaminated MBM was imported to the territory of Latvia before the independence.

In conclusion it is likely that an internal challenge emerged in the territory of Latvia already before 1991 and that it continued to exist and to grow, due to the extremely unstable system. The external challenge experienced in the second half of the 90s fuelled that process, making the presence of an internal challenge even more likely since 1994/95.

4.2 Risk that BSE infectivity entered processing

The BSE-agent may have reached the territory of Latvia before its independence in 1991. If that happened, a processing risk might have existed since the 80s. It was probably increased after 1995 when non-negligible quantities of live-cattle and in particular MBM were imported from BSE risk countries. A significant risk that BSE infectivity entered processing therefore exists since some years, at the latest since 1999, when domestic cows exposed to contaminated imported MBM around 1995, could enter processing while approaching the end of the incubation period.

4.3 Risk that BSE infectivity was recycled and propagated

A risk that BSE infectivity was recycled and amplified first existed when potentially infected cattle were processed, i.e. potentially before the independence of Latvia. It became much higher since 1999, when the processing risk occurred.
Since 2001 the recycling and propagation risk starts to decrease to some extent but if the BSE-agent were present in the country it could still be recycled but not amplified as long as rendering is not improved and the “total feed ban” is not fully controlled.

5. CONCLUSION ON THE GEOGRAPHICAL BSE-RISK

5.1 The current GBR as function of the past stability and challenge

- The current geographical BSE-risk (GBR) level is *III, as it is likely but not confirmed* that domestic cattle are (clinically or pre-clinically) infected with the BSE-agent**.**

5.2 The expected development of the GBR as a function of the past and present stability and challenge

- As long as stability remains as it is, the probability of cattle to be (pre-clinically or clinically) infected with the BSE-agent will remain as it is as long as no further external challenges are experienced.

5.3 Recommendations for influencing the future GBR

- Enhancing the stability of the system, in particular by ensuring that cattle has no access to mammalian MBM in combination with appropriate rendering and exclusion of SRM and fallen stock from any feed chain would increase the probability of a fast decline of the GBR.
- An improved (active) surveillance would be necessary to confirm this development.