

The end of the intensive livestock sector?

A study about trust in a future for the intensive livestock sector in the Netherlands, according to actors from politics, sector and value chain.



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Abstract

This research analyses the trust Dutch political parties have in the future of the intensive livestock sector. The intensive livestock sector is confronted by many problems on a local and regional scale, and in some local communities there is a deadlock in finding solutions for these problems. It is therefore interesting to discover what actors on a national level think about these problems. This research attempts to achieve an impression by interviewing the representatives of the national actors. These representatives are actors from the intensive livestock sector, employees of the ministry (of economic affairs, agriculture and innovation) and agricultural experts of the political parties. With the help of these interviews I identified frames which indicate how these representatives think about the sector, scale increase and the role of the government. Another important element of the interviews is the questions about the risks that each representative sees for the sector. The perspectives on risk together with frames provide insight in the trust the representatives have in the sector and to draw conclusions that relate to the future of the intensive livestock sector.

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LTO: Agricultural organization in the Netherlands

NVV: Agricultural union for pig farmers in the Netherlands

NVA: Agricultural union for tillage farmers in the Netherlands

PVE: Production agency for meat, poultry and eggs

NGE: Economic measurement tool to represent the size of agricultural activities

LEI: agricultural –economic institute of the Netherlands

PvdA: Labour Party

VVD: Liberal Party

CDA: Christen Democratic Party

SP: Socialist Party

GL: Green Party

D66: Social Liberals Party

PVV: Freedom Party

SGP: Conservative Christen Party

CU: Social Christen Party

PvdD: Party for Animals

1. Introduction

“Agriculture is about all the activities used in nature with the help of labor and capital to generate more useful plants and animals than they would generate on their own” (Minderhoud 1952, p2). After the second world war, Dutch society had to increase its agriculture production in order to feed its people, which led to the industrialization, specialization and mechanization of Dutch agriculture (van Zanden 1998). Together with European cooperation on trade (Meester et al. 2005) and national cooperation by farmers (Van der Woude 2001a) during the years 1950-1970, this gave rise to the intensive livestock sector in agriculture. Nowadays, the intensive livestock sector faces many problems that relate to animal welfare, public health and the usage of land. This study tries to find solutions seen by politicians for these problems, as they have a final vote in new legislation. This chapter defines the intensive livestock sector (1.1), a focus on the relationship between farmers, politics and the government: the iron triangle (1.2), an elaboration about the problems reflected on the intensive livestock sector (1.3) the problem statement (1.4), research objectives (1.5), research questions (1.6) and the outline of the report (1.7).

1.1 Definition of the intensive livestock sector

To give an useful definition of the intensive livestock sector it is important to explain what intensive means. More intensive production methods mean more efficient use of production factors such as land, capital and labor. The idea is that with the same input one gets more output, this is mostly done by scale enlargement (Bos et al. 2010). The term intensive can also relate to the usage of the production factor land. An intensive farm is less dependent on land when producing livestock or dairy, land is also less important for the production of fodder and processing of manure. (Bos et al. 2010). The definition of the intensive livestock sector this study uses involves those farms within agriculture that **intensify or have intensified their production of livestock** and of **which the main part of their production takes place indoors** (Commissie Ruimte en Milieu 2010). I do not use the term intensive livestock industry because this already includes a value judgment, which can influence the perception of the reader.

The LEI, an organization that monitors all the production and financial data of the agricultural sector in the Netherlands, uses the term **collective** to describe a sector and all the economic activities that relate to it, so suppliers and consumer (van Leeuwen et al. 2010). Upon the livestock sector the LEI makes a distinction between the livestock collective of which production capacity depends on land, with as primary production: horses, cows, and goats, and the intensive livestock collective, with as primary production: pigs, calves, and poultry. The term collective is similar to the term **value chain**, which means: the chain of activities of a firm in a specific industry (Porter 1985), in this case the intensive livestock sector. **In this research I use the term value chain instead of collective when talking about suppliers or users**, because value chain is a more generic term and therefore easier to understand.

1.2 The iron triangle.

The subchapter above explains the definition of the intensive livestock sector, this subchapter explains how this intensive livestock sector came into existence. Besides the intensive livestock sector it also gives a brief overview of the organizational structure of the entire Dutch agricultural sector with a focus on the relationship between farmers' organizations, government and political parties. The reason for this is that this relationship depends on trust which is important for the problem definition in this research.

Farmers in the Netherlands organized themselves at the start of the 20th century, because a farmer in an organization stands stronger than a farmer alone. Together the farmers could better control input and output prices, organize processing and initiate training to disseminate knowledge about farming. The end of the nineteenth century saw the development of many cooperatives and farmers' unions and organizations for employers within the agricultural sector. They were inspired by social movements in that era and were divided mostly according to religion or political affiliation (van der Woude 2001b). After the Second World War all the different farmers unions and organizations decided to increase their cooperation due to the high priority of food security on the national agenda. Together they formed the **"Landbouwschap"** in 1954. The Landbouwschap was a sectorial organisation under public law and represented the general public and administrative interests of the agricultural sector. The Product Boards were responsible for the interests that relate to producing, processing and transporting within a vertical production chain (Kickert 1998). The Landbouwschap, together with the government, represented by the ministry, and politics, represented by members of parliament of each of the large parties, was called the **"iron triangle"** (de Vries 1989). The Landbouwschap had contact with the ministry and was together with the Product Boards responsible for executing policy, the members of parliament specialized in agriculture were responsible for supporting new rules and regulations (van Dijk et al. 1999). The focus within this iron triangle was on the purpose of making agriculture self-supporting, provide a reasonable income for the farmers and affordable food prices for consumers. In the early fifties of the twentieth century the actors within the iron triangle succeeded in this goal of making the Dutch agriculture self-supporting. The Dutch farmers were so successful they even created surpluses which they exported to other countries within the European Union or to the rest of the world (van Zanden 1998). This focus of self-support led to more intensive production of agricultural farms, especially in the south of the Netherlands, thereby creating the intensive livestock sector. This sector did not need large amounts of good quality soil because of high mechanization and the nearby port of Rotterdam which provided cheap animal feed (Meester et al. 2005). Also the system of integrated knowledge: organization, education and publicity helped to spread new knowledge about the best and most optimal techniques among the farms.

The iron triangle worked perfectly for some 20-25 years but in the 1970s the first cracks or corrosion within the iron triangle became visible. The underlying reasons for this was that one homogenous representation of the agriculture within the Netherlands was still difficult (Krajenbrink 2005) because of different interests of farmers. The increasing amount of rules of (European) regulations also contributed because it reduced the influence of farmers and increased the influence of juridical advisors (van Dijk et al. 1999). The spark that set the iron triangle on fire for a moment was the economic crisis in the 1970s and in response to that reduced financial support by the European Union. At a protest demonstration of farmers' organizations and unions in Utrecht, farmers revolted

en masse against their representatives. During that momentum the cracks became visible to the outside world. This event, and other similar events that followed, made civil servants within the ministry realize that the interests of the Landbouwschap differed from those of the farmers. It enabled the civil servants to criticize plans of the Landbouwschap and acknowledge environmental or nature problems (van Dijk et al. 1999). In hindsight this neglect of problems related to a strategy that focused on growth in the intensive livestock sector which contributed to the problems within the sector and downfall of the Landbouwschap (Krajenbrink 2005).

When in 1984 the then Minister of Agriculture Braks proposed a law to reduce the number of animals in the intensive livestock sector without consulting the farmers in the iron triangle, the relationship between the stakeholders in the whole iron triangle worsened. The reasons for this reduction were too many animals in the Netherlands producing too much manure. The farmers could not believe that their representatives did not know anything about this law. Therefore farmers started to distrust the advice of their own representatives. This caused the representatives of the farmers to focus on listening to their farmers more and only cooperating with the government when it was in their favor. The representatives of the farmers still talked with the partners in the iron triangle, but they told another story to their farmers. This caused the political parties and government to go their own way, the representatives of the farmers were no longer entirely reliable. This was bad for problem solving in a cooperative way and widened the gaps between the partners.

When farmers at the end of the 1980s again organized massive protests against price reductions for grain it became clear again that farmers no longer listened to their spokespersons. The system of boards and unions: the Landbouwschap, to represent the entire agricultural sector no longer worked, resulting in greater segmentation within the sector. This segmentation was expressed by the founding of sectorial farmers organizations like NAV; union of tillage farmers, and NVV; union of pig farmers (Kickert 1998). The underlying reasons for this segmentation were differences between farmers out of different regions and vertical production chains (Krajenbrink 2005). To counteract this development of sectorial organizations the employers within the agricultural sector established the LTO, the Dutch agriculture and horticulture organization. The LTO started to represent the interests of employers within the agricultural sector, instead of the Landbouwschap. Eventually conflicts between employers and laborers in the horticulture sector (Reformatisch Dagblad 1995) led to the end of the Landbouwschap and with it the Iron triangle in 1996. The underlying reasons for this end were segmentation within the agricultural sector and neglect of problems. With the Landbouwschap gone and the sector divided, the government and parliament no longer had a platform for preparing, implementing and evaluating policy, this created a policy vacuum (Hees 2000). However government and parliament still wanted to know what the sector thought (van Dijk et al. 1999), so these actors did not have a clear vision about the sector. This summary of relationships between politics, sector and government of Van Dijk et al. was 13 years ago. My interest lies in seeing whether the situation is presently/currently still the same.

1.3 What are the problems within the intensive livestock sector

The ending of the previous subchapter talks about a direction which the intensive livestock sector had to take, but before choosing a direction one has to know what the problems are. The problems (Leneman et al. 2009; Oude Lansink and Peerlings 2001; Pleijte and Vogelzang 2009) within the intensive livestock sector can be categorized into environmental problems, spatial problems, public

health problems, and animal welfare problems. What all these problems have in common is that they relate to the concept of negative externalities. Externalities are unintended negative side-effects of economic activities, they are non-monetary, can damage their environment and their effect is not calculated into the market price. The solution to deal with negative externalities is to internalize them (Cornes and Sandler 1996). Whether an externality is or is not internalized depends on whether the benefits to internalize them outweigh the cost. Assigning these costs, especially when it involves a public good is difficult. The reason for this is that public goods have no property rights, examples of public goods are: public health, the environment/landscape and animal welfare. I mention problems with externalities that relate to the intensive livestock sector: problems with the environment (1.3.1), problems with public health (1.3.2), problems with spatial planning (1.3.3) and problems with animal welfare (1.3.4). These problems are not objective by nature but subjective, problems for one person might not be a problem for another person. The other subchapters give two important reasons that are responsible for and reinforce the externalities: the citizen vs. consumer problem (1.3.5) and scale increase (1.3.6). The Citizens vs. consumer problem is responsible for externalities because of not internalizing the price, while scale increase helps in reducing the costs for internalizing externalities but increases the side-effects of the externalities.

1.3.1 Problems with the environment

The problems with the environment relate to manure and ammonia emissions. Before the era of the intensive livestock sector, a farmer used the manure from the animals to fertilize his land. With the introduction of the intensive livestock sector there were large amounts of manure that exceeded the natural capacity of the land. Minerals like phosphate, nitrogen and ammonia started to accumulate in the soil, water and air (Gebrezgahber 2012). This started to raise societal concern at the start of the eighties (Steenbekkers et al. 2006; UN 2008). From that moment on, government and politics started to work on legislation to first reduce the number of animals in the Netherlands and second to reduce the amount of manure or filter out the minerals better. This excessive manure remains a problem because the expense of disposing of the manure is high and keeps on rising.

1.3.2 Problems with public health

The concerns about public health start after the outbreak of some serious animal diseases in the nineties and the new millennium. First the discovery in the UK that there was a linkage between the BSE outbreak and the disease Creutzfeldt Jakob, which was scientifically proven years later (website WHO 2012). This was followed by classical swine fever in 1997, followed by foot and mouth disease: FMD, in 2001 and avian influenza in 2003. The most recent disease was the outbreak of Q-fever in 2010. The diseases BSE, avian influenza and Q-fever were also dangerous for humans: BSE by eating the meat of the infected cows, avian influenza and Q-fever could be hazardous to those working with the animals or living near the animals. Q-fever increased the discussion about the effect of keeping large numbers of animals on our health, especially in the province Noord-Brabant where most victims of Q-fever live. The high use of antibiotics is also reason for concern, to prevent animal diseases farmers use antibiotics which are also used on humans (Sikkema 2011). These antibiotics are used to destroy bacteria like MRSA or ESBL. Due to the high usage bacteria become resistant:

this means that when a human is infected by the bacteria it is more difficult to treat. Another discussion is about the fine particles which come from the usage of manure, especially chicken manure. These are particles smaller than 10 micrometer which are inhaled and have health risks concerning the lung and vascular system (Buijsman and Koelemeijer 2005). It has been proven that the concentration of fine particles is higher in the neighborhood of an intensive livestock farm when compared to a farm not producing in an intensive system (Heederik and Ijzermans 2011). The debate about the effects and risks of these diseases and fine particles is still going on.

1.3.3 Problems with spatial planning

Due to the high population density and a relative shortage of large nature and recreation areas in the Netherlands, agriculture plays a large role in fulfilling the need for nature and landscape by society. Tensions are created between these needs because the landscape which the intensive livestock sector generates does not match the ideas and wishes of the society (Leneman et al. 2009). The first example of such a tension is larger farms that not match with a traditional image of farms and therefore pollute the landscape. A second example of a tension is about larger farms keeping more animals and therefore generating more odor. This perceived stench is the reason for the policy of so called “odor circles” (website ministry Economic affairs, Agriculture and innovation 2012) which means that the odor a farm emits has to stay within a fictional circle, otherwise the farmer has to take measures. The last example of a tension is that larger farms influence cultural life within a rural community. Larger farms within the intensive livestock sector diminishing cultural life, this means that one large building or farm replaces 10 smaller farms, which leads to less farmers and therefore a decline in the culture that relates to farming and cultural life within a rural community (Steenbekkers et al. 2006).

1.3.4 Problems with animal welfare

The intensive livestock sector follows the same incentives as regular industries, with as the main difference that it does not produce cars or bicycles but living products. This brings in an ethical dimension about the value of animals: “Are they a commodity or are they living beings?” At the start of the nineties the Animal Protection Agency helped in creating a law that ensured some basic animal welfare legislation in the intensive livestock sector (Dierenbescherming 2012). In 1997 during the swine pest outbreak the public debate became immense due to images of the massive culling of pigs. Society in the Netherlands was confronted with the modern way of housing animals, and the view of what agriculture should look like collided with the actual agricultural practice. Questions were raised as to why these animals had to be killed and why they were living under such conditions. New action groups like “Varkens in Nood” (website Varkens in Nood 2012) and in 2001 “Wakker dier” (Wageningen UR 2006) were founded to actively advocate for improving the welfare of animals in the intensive livestock sector. At the start of the new millennium organizations like Wakker Dier started to cooperate more with other organizations like Varkens in Nood (Wageningen UR 2006). In 2002 ongoing criticism of the practices in the intensive livestock sector led to the founding of the Party of the Animals (PvdD) in 2002 (website Partij van de

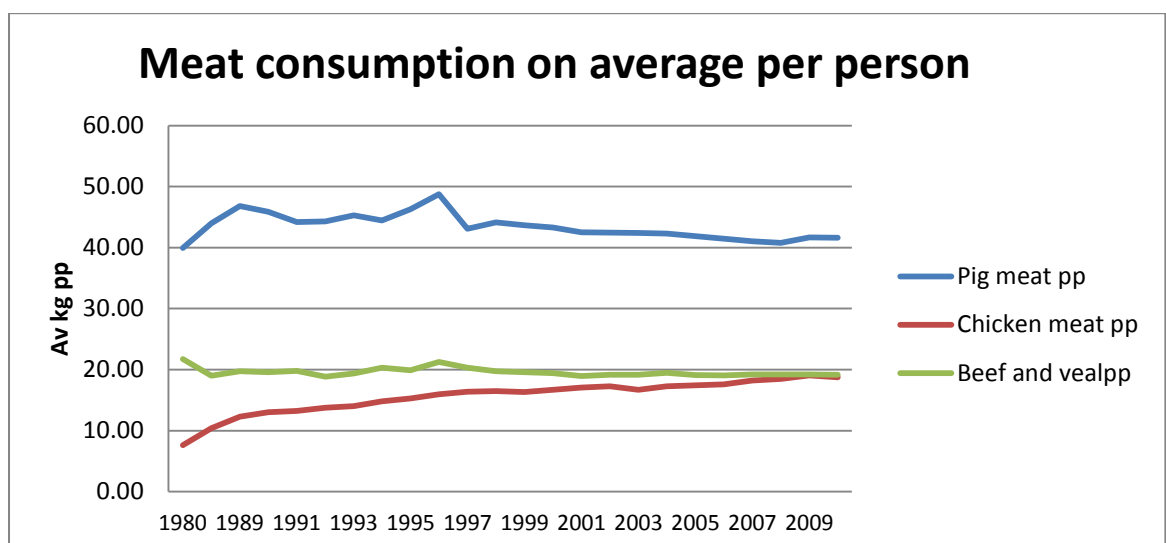
Dieren 2012). The PvdD placed animal welfare on the political agenda and animal welfare issues gained even more attention(Jonker 2012).

The increase in attention for animal welfare led to new legislation about animal welfare, new housing systems: the “Rondeel stable” for poultry, and “Better Life” a new labeling system. The Rondeel stable is a poultry housing concept where chickens have more space to move and the walls are partially open (webiste Rondeel 2012), The Better Life label grades the quality of life of animals held for meat. It is a public-private initiative by supermarkets and the animal protection organization. The issue of animal welfare is attracting more and more attention, but society still has different opinions about what is best for the animals.

1.3.5 Citizen vs. consumer problem

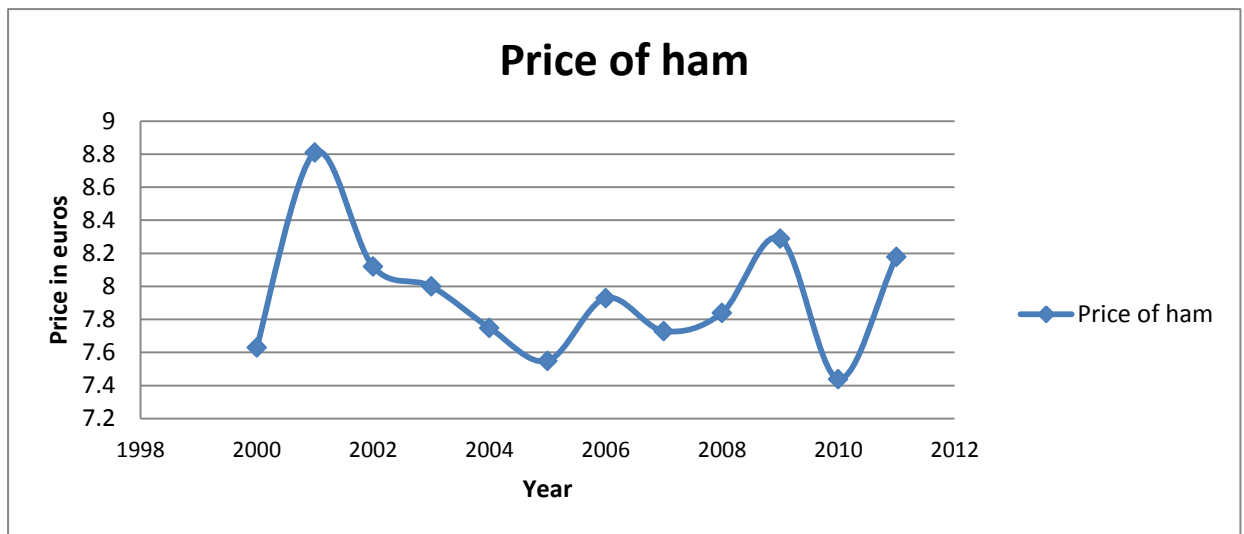
An overarching problem that relates to the intensive livestock sector is that of the citizen versus consumer. This means that what a citizen believes fails to match actual consumer behavior (Berglund and Matti 2006). Citizens enforce their demands through government and politics with the help of action groups, while consumers enforce their demands by their buying pattern at a supermarket/grocery shop. So when a citizen wants cheap meat he takes for granted the externalities, but when he also wants a cleaner environment or more welfare he has to pay more to internalize these externalities. This should lead to a higher price or a decrease in consumption of standard pig meat. When looking at how citizens behave as consumers, it shows that since the swine pest the consumption of meat has not decreased dramatically: see figure 1. When examining the price of, for example, ham, it shows no increase in price. So in general there appears to be a mismatch between what a citizen wants and how he acts as a consumer. If the producer of meat has to internalize externalities like environment or animal welfare and the consumer does not pay for these externalities, the producer has to cover the costs. This is the reason that farmers are reluctant to deal with the problems I mention earlier, they are not sure whether they will recoup their investment when internalizing the externalities that relate to those problems.

Figure 1: Average meat consumption per person in the Netherlands for the period 1980-2010



Source: (LEI 2012)

Figure 2: Average price of a kg ham in the period 2000-2011



Source: (CBS 2012)

Besides the price perception of the consumer, marketing can also be a reason for a consumer being unwilling to pay a higher price. If a consumer has to pay more for a certain product he also expects a better quality in comparison to the regular products he buys, so the higher value added product must advertise itself (Rustenburg 2004). Another reason for this might be retail organizations who use low prices to lure consumers and organic farmers who want to earn more and therefore keep their prices too high. As a result a gap exists between the higher value products and conventional products (Remmers 2003).

1.3.6 Problems with scale increase

Due to the citizen vs. consumer problem the farmer has to adjust or limit his production which leads to higher costs. The market for agricultural products is elastic, therefore the price is hard to control, this means a farmer can only influence his cost price (van der Meulen et al. 2011). If a farmer operates in a market with a fixed price and wants to increase the income from farming he or she has the three options: find additional sources of income (1), move into a different market segment; biological or niche (2), or lower his cost price(3). The biological and niche market is still small (Bakker and Brouwer 2012), therefore I assume that a majority of the farmers searches for means to lower their cost price to increase their income.

The means a farmer has to lower this cost price are: increasing the scale of his farm, through innovation or with help of the value chain. By increasing the scale of a company a farmer can produce more which increases his revenue and lowers his cost price per unit. Innovation means one can produce more efficiently, which lowers his cost price per unit. However innovation and increasing the scale of a farm is capital intensive, therefore to be profitable it requires a certain scale. So some types of innovation have a positive effect on scale increase (van der Meulen et al. 2011). Specialization within the value chain also has a positive effect on scale increase: supplying and processing companies that take over a part of the farmers'

production process, therefore lowering the price of inputs or the possibility to sell more produce. Specialization therefore facilitates scale increase by lowering the cost price and ensures supply/demand (van der Meulen et al. 2011).

This scale increase strengthens the protest of some citizens who see a rise in problems related to the environment, public health, animal welfare and spatial planning. Some citizens also see scale increase as an opportunity to solve most of the problems because of new techniques. So scale increase is viewed by the sector and some others as the solution, while others think it enlarges the existing problems even further.

1.4 Problem statement

Considering the intensive livestock sector there are externalities which cause problems on the subjects: animal welfare, public health, environment and spatial planning. These externalities need pricing, which is difficult because of the consumer versus citizen discussion. When a person's ideas are in line with his actions as a consumer the product will be more expensive due to internalizing externalities. When this is not the case the citizen will turn towards the government and politics for new regulations to reduce externalities, for example: a restriction on the use of certain cages to house poultry. When this new legislation comes into practice the result is pressure on the cost price of the farmer: because of the restriction on cage sizes, the farmer keeps less chickens, therefore he tries to lower his cost price through scale increase. This scale increase negatively influences the problems with externalities, so a vicious circle emerges. The actors who have the power to break through this circle are the government, the consumers and the retail sector. The government by banning out the externalities through legislation, the consumers by paying a higher price and the retail sector by collecting and promoting higher value/higher priced products. There is already a lot of research on how consumers perceive higher value/higher priced produce (de Bakker and Dagevos 2010; Hoste et al. 2004). The influence of retail is growing but is hard to study as an outsider. The reason for this is that sustainability and price of produce are a competitive attributes which the retail does not want to share. Therefore in this study I focus on the organizations that give shape to the government: political parties.

When the problems which this report mentions, are significant to political parties, they should mention them in their election programs. The table below gives a summary of the problems political parties mention concerning the intensive livestock sector in their election programs for the elections in the year 2010. I analyze whether subjects or themes that relate to the problem that I mention in the previous subchapter appear in the election programs of political parties. The plus sign indicates that the political party mentions the problem in their election program, the minus sign means they do not. A plus and minus sign means that the attention is not very clear or explicit. A short analysis of the election programs which serves as basis for the table is in appendix 1.

Table 1: Problems political parties mention

	Environment	Public Health	Spatial planning	Animal welfare	Citizen vs consumer	Scale increase
<i>D66</i>	+	+	+	+	+	+
<i>PvdD</i>	+	+	+	+	+	+
<i>SGP</i>	+	+	+	+	+	+
<i>CU</i>	+	+	+	+	+	+
<i>GL</i>	+	+	+	+	+	-
<i>SP</i>	+	+	-	+	+	+
<i>PvdA</i>	+	+	+	+	-	-
<i>CDA</i>	+	+/-	+	+/-	+	+
<i>VVD</i>	-	+	+	+	-	-
<i>PVV</i>	-	-	-	+/-	-	+/-

The table shows that all political parties in their election programs give attention to the problems subchapter 1.3 mentions. Subchapter 1.2 shows that the connections between political parties and the intensive livestock sector were close from 1950 until 1990, but with the disappearance of the Landbouwschap it is up to politicians to show the direction. So which direction do politicians see for the intensive livestock sector? Do politicians still believe in a future for the intensive livestock sector in the Netherlands? Do politicians put trust in this sector to become sustainable? If they do or do not what are their reasons to trust the sector? And what are the reasons to distrust? This information cannot be retrieved from the election programs. Therefore I conduct a more in -depth study into the viewpoints of political parties on these issues.

1.5 Research objectives

This thesis aims to contribute to a better understanding of the viewpoints of political parties in the Netherlands to support/block further development of the intensive livestock sector. The focus is on the underlying reasons the political parties give for support or block. This aim is interesting because there has been a lot of research that focuses on local (political) actors and motivations of citizens but not on national actors. I want to get an insight into if politicians trust a future for this sector. The societal relevance of this research is that it gives an impression of the position the different actors take in the debate about the future of the intensive livestock sector.

The above explanation results in the following research objectives:

1. A clear outline of the different frames political parties use within the debate about the intensive livestock sector. Frames say something about the direction political parties want the sector to move.
2. Analyses of the trust political parties have in the intensive livestock sector.
3. Identify a (possible) common direction actors in politics and sector see, regarding the future of the intensive livestock sector

1.6 Research questions

The main research question which is derived from the research objectives above is:

Do political parties trust the intensive livestock sector in the Netherlands to deal with the problems regarding the environment, public health, animal welfare, and spatial planning?

To answer the main research question I use the following sub questions:

Whether I have trust in a person to deal with certain problems, depends on: the risks that are coupled to these problems and my image of this person. This image consists out of a general view, expectations and responsibilities that frame this person and help in assessing whether he or she is able to tackle the problems. Therefore frames about the sector are an indicator of trust/distrust.

1. What are the frames political parties use within the debate about the intensive livestock sector?

Within the process of gaining trust risks play an important role. The more risky a problem is the more trust I need to have in a person to deal with these risks. To say something about the level of trust necessary to deal with risks, I first have to know whether there are risks and what the risks are. The number and intensity of risks are indicators for the amount of trust that is necessary to suspend these risks.

2. What are the risks that have to be suspended to ensure trust in the intensive livestock sector by political parties or actors within the sector?

When I combine the concepts of frames and risks I am able to say something about the level of trust of an individual actor. Interesting is whether there are similarities in the level of trust between actors and if trust in the sector is low whether there are the possibilities to strengthen this level of trust.

3. Are there possibilities to strengthen trust between political parties and the intensive livestock sector?

1.7 Outline of the report

The following chapter (2) describes the theory and main concepts this study uses. Chapter three describes the methods. Chapter three also discusses the limitations of the chosen method. Chapter four describes the different frames which the representatives use. Chapter five deals with the risks the representatives see in relation to the intensive livestock sector. Chapter six connects the frames with the risks and tells whether there is trust between politics and sector. This chapter also describes the trust the sector has in politics/government and the trust they have in retail. Chapter seven gives the conclusions of my research. In the last chapter (8) I present a discussion about the added value of my research in comparison with other research.

2. Conceptual framework

This chapter explains the theoretical concepts I use in this research: trust and frames. I explain which definitions of the concepts I use and why they are relevant for my research. First I deal with the concept of trust (2.1) and then I deal with the concept of frames (2.2). At the end of this chapter there is a short recap of the concepts I use in my research (2.3)

2.1 Trust

"In a world with trust, we need no rules." (Breeman, 2011)

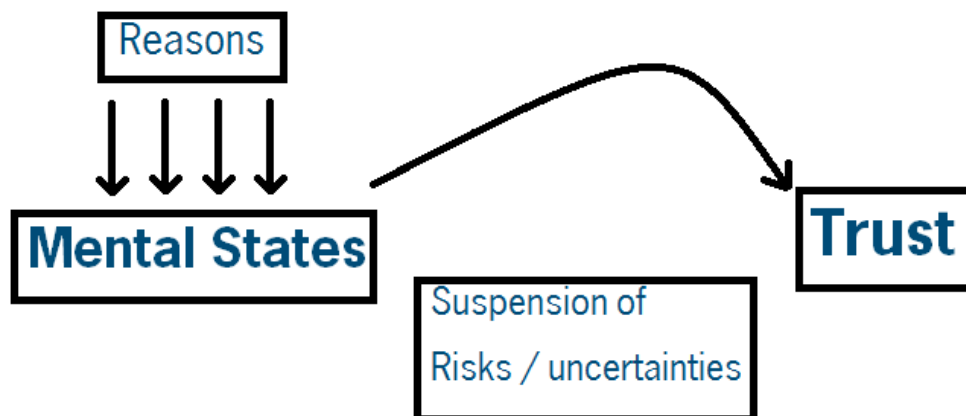
The above statement mentions the possibilities of trust, when people trust one and another there is no need for rules or laws to keep each other to an agreement. The situation above is an ideal type which relates to the concept of social capital (Putnam 2000). According to Putnam social capital is: the aggregated value of social networks and the ability of members within these networks to help each other. The purpose of social capital is to create cooperation and mutual supportive relations within communities or nations, examples of social capital are sport clubs or clubs that share a joint activity like singing, acting, dancing etc. Therefore social capital can help in preventing social disorder. The more social capital a community has, the less regulation with the help of other instruments like laws, rules, agreements, a community needs (Putnam 2000). Trust is a shaper as well an indicator for social capital, but what is the definition of the concept of trust? The following paragraph will discuss the concept of trust (2.1.1). Trust can be within individuals or within societies, the second paragraph (2.1.2) explains the differences between the two forms of trust and the relevance of these differences in my research.

2.1.1 The concept of trust

Trust is about suspending risk, which means that when trust is well-established people think and act as if there are no risks. Persons suspend risks because they believe it has favorable results for them (Breeman 2006). Whether a person expects favorable results depends on his/her mental status, which leads to the definition of trust as a mental status of favorable expectations (Breeman 2006). Mental statuses are beliefs, desires, expectations, fears and so on (Searle 1983) which relate to objects or states of affairs in the world around us. Mental statuses refer to the term intentionality: "the capacity of the mind to represent objects or a state of affairs in the world other than itself" (Searle 1996, p6-7): a lizard is an animal, but to a child it can represent a monster. "To achieve an intentional status of expecting something of objects or state of affairs depends on a continuous interpretation of other human beings, the qualities of objects and aspects of real life situation" (Breeman 2006, p23). To me this quote means that the interpretation of reasons defines whether his mental status of expectations are favorable (see figure 3). The base of these reasons can be on rational choices (Coleman 1990): a person weighs the reasons as gains or losses, or psychological impulses (Kramer and Tyler 1996): the reasons relate to moral and social bonds. The point with expectations is that a person can always give good reasons to justify them, thus "to understand why a person arrives at a mental status of favorable expectations (trust) is to consider his sometimes complex interpretative position." (Breeman 2006, p24)

Another prerequisite for trust is suspension. Suspension is the mechanism that brackets out uncertainties and risks, this makes the interpretation at that moment “certain” and enables the leap to favorable expectations (Möllering 2006). When a person interprets reasons, the outcome can be favorable or unfavorable. If the reasons are unfavorable a person can still decide to suspend risks, the next simplified example illustrates this. A car salesman A, who is trying to sell a certain car to customer A. Whether customer A trusts car salesman A depends on several reasons: what is the reputation of car salesman A, what does his garage look like, how does he sell his product. If customer A has been cheated in the past by car salesman B, he will treat the reasons given by car salesman A with more suspicion. The suspension mechanism is about car salesman A trying to rebuff the uncertainties/risks the customer sees. If the person has been cheated before, car salesman A can show some reviews of satisfied customers or show legal conditions which prove he is a trustworthy salesman. Above example also shows that suspension is also a subjective process. Suspension can also happen when a person follows his gut feeling or takes his chances, even though he knows the odds are against him. Together suspension and interpretation are necessary for someone to have favorable expectations of a certain policy and therefore trust this policy (Breeman 2006). The next figure recaps the theory about the concept of trust:

Figure 3: Model of trust



Breeman, 2008

The figure above shows both the concepts of risks and uncertainties. For this research I use the concept risk. A first definition of the difference between uncertainty and risks is that uncertainty relates to an objective of which the probabilities are not known, while risk relates to an objective of which the probabilities are known (Knight et al. 1921). Later Epstein redefines this difference into the following definition:

“Risk refers to situations where the perceived likelihoods of events of interest can be represented by probabilities, whereas uncertainty refers to situations where the information available to the decision-maker is too imprecise to be summarized by a probability measure” (Epstein 1999)

This study focuses on the concept of risk because when speaking of risks, persons or society assigns a probability to these risks and therefore already make an interpretation, while an uncertainty remains vague. Because risks are already an interpretation it is easier to ask for

them, asking about uncertainties can give answers which lie to far ahead in the future, which is less relevant for my research.

The theory and figure in the paragraph above show the concept of trust: this research uses a slightly different concept in comparison with the theory above. The concept of suspension still has a connection with the mental statuses of a person. If salesman A in the previous example uses the same reasons as car salesman B, customer A, based on former experiences, will be less likely to trust car salesman A. Therefore the mental status intertwines with the suspension mechanism and will be hard to see as a separate step in the process. To follow the suspension process a researcher has to follow the action/reaction pattern between the persons to assess whether there will be suspension or not. This is not possible in my research because there are multiple problems within the debate about the livestock sector, the time span is too short and the debate involves too many actors. Even if I would be able to follow the actions/reactions and make an accurate assessment whether a person will suspend risk or not, it is not completely sure he suspends the risks in real life. Despite the constraints regarding suspension, I can estimate whether a person suspends the risk he perceives with the help of frames: see subchapter 2.2.

2.1.2 Collective trust

The concept of trust above is on an individual basis, but there is also something called collective trust, which means people switching from an individual mode of trusting to a collective mode of trusting. This concept is relevant for my research because I want to find out whether there is collective trust in one future direction for the intensive livestock sector. A collective mode of trusting relates to collective intentionality which means: “that one’s own intentionality is derived from a collective intentionality.” (Breeman 2006, p28) This intentionality refers to a person’s beliefs, desires, expectations: see previous subchapter, therefore to me resembles a person’s mental status. To get a collective intentionality, people have to switch from an I-intentionality to a we-intentionality. This means for example that individuals change their intentional state: I believe those risks are dangerous to an intentional state like: we believe those risks are dangerous. To me switching from one’s own intentionality to a collective intentionality depends again on similarities in the mental status between persons. The more a person’s mental statuses and underlying norms/values and reasons connect with that of another person, the more they can have a collective intentionality.

Switching from an individual to a collective mental status can also happen through social mechanisms: crisis-mechanisms, diffusion mechanisms, examples mechanisms and coupling mechanisms. The crisis mechanism is when there is a crisis individuals feel an urge to act together because they are in it together (Kingdon 1984). The diffusion mechanism is about diffusing information easier through an already existing network which leads to collective action. The example mechanism is about groups following examples which have proven to have positive benefit and therefore become shared references. The coupling mechanism is about collective mental statuses of one object, subject positively influencing collective mental statuses about other objects, subjects. An example of this is if a group of farmers get

high yields from buying better seeds, it might be easier to convince them to use other techniques like fertilizer etc. All of these mechanisms are on a belief formation which implies that when an individual sees other groups acting in a certain way it affects the beliefs and actions of that person (Hedström and Swedberg 1998). Switching from an individual toward a collective mode to me also depends on the level of cohesion in mental statuses. Here the concept of trust links up with framing which I discuss in subchapter 2.2.

2.2 Frames

This subchapter discusses the concept of framing, because it plays an essential role in identifying different mental statuses and is relevant for analyzing whether there is trust. Within this subchapter I discuss which perspectives there are on framing, what I understand under framing and how it relates to the concept of trust.

The previous subchapter already hints at the meaning of frames. When people analyze objects they try to give an intention or a meaning to them. Framing helps us with shaping, focusing and organizing the world around us (Gray 1997). There are however different perspectives on the precise definition of framing. Within a cognitive perspective on framing, frames are seen as cognitive structures within our memory (Bartlett 1932). Within this cognitive perspective our memory serves as a guide to the interpretation of new experiences, the choice of which frame to use depends on the cues others use as well as on one's own memories (Bateson 1972). The interactive perspective to framing is defined as: "the dynamic enactment and alignment of meaning in on going interactions. Frames are defined as transient communication structures that people build around issues during each turn at talk" (Dewulf and Bouwen 2012, p169). Interactional issue framing is about putting particular elements of an frame into focus, while leaving a marginal role for other elements (Dewulf et al. 2011). In this research I use the interactive perspective on frames, because my interest lies with the issues there are within the debate about the intensive livestock sector and not with how an individual chooses particular frames.

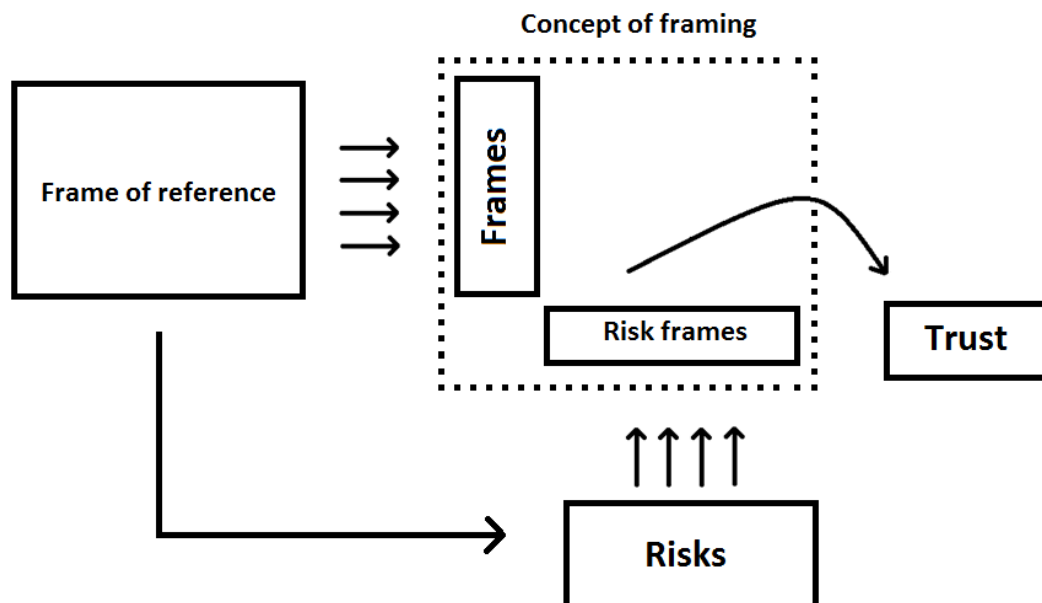
Frames are the product of framing. "A frame reflects our interpretation of what is going on and how we see ourselves and others implicated in what is happening" (Gray 1997). Frames can have different types of purposes, for example: (1) define issues, (2) express which actions to take and by whom, (3) protect oneself, (4) justify a stance when discussing an issue and (5) mobilize people to refrain or take action (Gray 1997). The purpose of my research is to assess trust political parties have in the future of the intensive livestock sector, therefore my interest lies in the frames that define issues: issue frames. This means people use different frames to identify problems and give explanations for these problems (Vaughan and Seifert 1992). A more concrete definition of the concept of issue frames is that any particular event, situation, or issue can be understood and represented in very different ways, by approaching it from different perspectives (Dewulf and Bouwen 2012). In this case the issues, events and situations relate to the future of the intensive livestock sector. Risks are according to me are also a form of frames, like I state in 2.1.1 they are an interpretation of the probability of these risks to happen. Therefore I speak of risks frames or perspectives on risks rather than risks. This probability or level of risk is measured by weighing the advantages against the disadvantages of certain risks, of which the criteria differ per person (Gray 1997).

When a person frames something he puts it in perspective by relating it to other information he already knows (Gray 1997). This knowledge base in my opinion is a person's frame of reference. A frame of reference contains all the beliefs, norms, values, knowledge and interest a person has (Aarts and van Woerkum 1994). This frame of reference is comparable with the complex interpretative position of an individual in subchapter 2.1.1. A mental status is about giving meaning or intention to an object or state of affair and therefore has similarities with the concept of issue frames. In this research I therefore use the term frames to represent mental statuses mainly about expectations but also about anxiety or fear. Examples of such mental statuses of fear and anxiety are risk frames, because risks are about certain fears or anxieties.

2.3 Short recap of the concepts

In this subchapter I recap the concepts this research uses. I use a figure to illustrate their relationship. The frame of reference depicts a person's: beliefs, norms, values, knowledge and interests. A frame is a representation of this frame of reference and shows us a perspective of this person on certain problems and solutions within the intensive livestock sector. One category of these problems are risks, so called risk frames show us to which degree a person frames certain risks regarding the intensive livestock sector. **In combination with other frames they tell us something about whether this person has trust in the sector to overcome the problems the sector faces.** If for example a person perceives animal welfare as a great risk, but he mentions that extra regulation will have to come from the market and no extra regulation is necessary, he still has trust in the sector to deal with this problem.

Figure 4: Elaborate model of trust according to my thinking



3. Research methodology

This chapter contains an explanation about the methods this study uses to answer the research questions. The first subchapter of the methodology part is about the methods this research uses (3.1). The second subchapter gives an overview of the different phases of the study: it summarizes the process of my research (3.2).

3.1 Methods

The main research question is about trust, to get an answer to that question this study relies on the concepts of framing and risk frames. Therefore I need a method that helps me to identify these frames and risk frames. Frames regarding the intensive livestock sector are about the perspective an actor has about the future of the intensive livestock sector. This perspective in my opinion means: what is the general image of this actor about the sector, which problems; besides risks, does he mention, with which actors does he have contact, does he have solutions or causes for these problems. To answer the research questions I use an interpretative approach. The basis for this approach lies in the assumption that we live in a social world characterized by the possibility of multiple interpretations (Yanow 2000). The interpretative approach means that I as a researcher try to understand how people or groups of people give meaning to specific events (van Bommel 2008).

Within the interpretative approach I use frame analysis and hermeneutics as research methods. Frame analysis is a method that links idea elements into packages of meaning (Creed et al. 2002). It tries to group these elements into a frame by analyzing texts and group words that refer to the sector or its problems. The hermeneutics method means that through the analysis of answers of actors I can understand a part of larger phenomena: trust in the intensive livestock sector. Normally one tries to identify "facts", which can be words, phrases or actions that support the trust building process (Breeman 2006), but I do this by identifying frames. I interpret whether the frames I find support the trust building process. In the end this method helps creating an overview about the level of trust in a future of the intensive livestock sector according to political parties and representatives of sector and value chain. This method consists out of an ongoing comparison between citations out of my interviews that indicate trust with theoretical notations in chapter 1 and 2.

The means of data collection for both methods are:

- Semi structured interviews, have not a prefixed question list but allow a conversation on predetermined themes (Silverman 2001). During my research I had a question list as back up for checking whether I had enough information about my themes: problems and solutions for the intensive livestock sector.
- Analyzing election programs of political parties to gain insight into how they think about the intensive livestock sector and help in designing questions.

3.2 Process of the research

This subchapter describes the phases in the study. There are four phases: determine who to interview and why (3.2.1), how did I prepare the interviews (3.2.2), how did I conduct the interview (3.2.3) and how did I analyze the data that was revealed by this research (3.2.4).

3.2.1 *Who to interview and why*

I first **make a distinction between the concepts actor and representative**. The debate about the intensive livestock sector involves a lot of different actors like: meat processors, supermarkets or groups of farmers. It is not possible to have interviews with supermarkets, because these are organizations, the organization itself cannot give an interview. Therefore I speak of representatives of actor A/B/C instead of actors.

My main research question is about the trust of politics in the intensive livestock sector, so to answer this research question the political parties are an important group of actors. The interviews in this research are with the representatives from political parties which represent nine out of ten political parties in parliament during the period June 2010-September 2012. Not all of these representatives are members of parliament, because the smaller political parties: SGP and PvdD in parliament were too busy. Instead of an interview with members of parliament for these parties there are interviews with policy staff of these members of parliament. The political party PVV, is missing, because I did not manage to make an appointment for an interview with them. The second part of the main research question is about how political parties think about the intensive livestock sector. Therefore each of the representatives who was interviewed, had knowledge of or a responsibility for the stance of his /her political party on agriculture or animal welfare.

As the main research question states, my interest is the future of the sector, therefore this study also contains interviews with representatives of actors from the sector. Interviewing all the individual farmers will be difficult therefore I chose to interview a spokesperson from the farmers' organization: LTO, and from the Product Board. A Product Board is responsible for one or a group of agricultural products from raw product until the end product. The Product Board in this research is responsible for the products: meat, eggs and poultry (PVE). This Product Board links up with farmers within the intensive livestock sector and with actors who supply or demand from this sector. Changes within the intensive livestock sector also affect actors who supply or demand products from this intensive livestock sector: they are part of the value chain within the sector operates. On the supply side there is an interview with the representative of Nutreco, one of the world's largest producers of animal feed. On the demand side there is an interview with a representative of VION, a large processor of meat. I wanted to interview a representative of a retail firm: because retail is an important actor in the value chain, however they did not want to cooperate with this type of research. The last organization I wanted to interview was a representative of the government: the Ministry for Economic Affairs, Agriculture and Innovation. This is because they are responsible for the design, implementation and execution. I tried to get representatives of all these actors who have a position as high as possible within the structure of these organizations. The reason for this is that a person in the top level of an organization has a larger responsibility regarding the establishment of a vision or a strategy for his company. Therefore to get an insight that best represents the viewpoint of a whole organization I had to interview representatives at the top level of an organization. I managed to interview both sustainability directors of VION and Nutreco, the director of PVE and the director of the northern division of LTO also responsible for the intensive livestock sector. Within the ministry I interviewed a civil servant

which is involved in all the debates about the intensive livestock sector. Appendix 2 shows the list of persons that I interviewed.

3.2.2 Designing the interviews

To structure the way I was going to interview the representatives I made an interview protocol: this was a guideline for introducing the interview. For each interview with a representative of a certain actor I used a general question list, which helped in addressing the themes I wanted to discuss: see appendix 3.

There are however detailed questions which focus on a specific actor. Most of these questions are in the interviews with representatives of political parties. The basis of the question list for the representatives of political parties is their election program for the elections in 2010. If for example, a political party does not mention agriculture as an element of spatial planning, I ask if there is an underlying reason for this. Questions for the representatives of political parties also contain some feedback to their ideological background in relation to the sector, for example when a liberal party wants more regulation. An example of such a list for the representative of GL is in appendix 4.

The detailed questions for the representative of the government and representatives of actors within the sector or value chain focus on their relationship with politics. When interviewing representatives of the sector/value chain and government I asked them about how they assess politics, the question list can be found in appendix 5.

3.2.3 Conducting the interviews

In the period October - December 2011 I visited all the representatives of sector, value chain, ministry and political parties. I held a total of fourteen interviews. All of the interviews, except two, were held in person. Those which were not held in person were done by telephone. The interviews had an average length of 30-60 minutes. When typed out this led to an average text of 6-12 pages per interview. After each interview I looked whether there were interesting concepts which emerged during the interview which I could use in the remaining research. For example the representative of VVD said that the Party of the Animals had a large influence on the viewpoint of “green parties” on the stance about the intensive livestock sector: see section 3.2.2. Therefore for me it is interesting to know whether this was true, it gave me an insight into the political relationships.

3.2.4 Analysing the interviews

I analyzed the interviews looking at the each interview individually and tried to find frames about the intensive livestock sector. I did this by looking for patterns within words or phrases that refer to the sector or its problems (van Lieshout et al. 2011), for example words or phrases that depict a general image of this sector: horrible, interesting, important, irrelevant. Another example is words or phrases that relate to a future for the sector: more rules, more quality, higher prices etc. After collecting the words and phrases I interpreted the meaning of

the words and phrases that aligned and I gave a name to this new frame. I grouped representatives with a similar frame and collected good examples to explain the content of a certain frame (van Lieshout et al. 2011). For the risk frames I looked at the risks the representatives mention and considered if I could put them, together in one group. To identify these frames I looked for words that express concern or worries. The greater the concern, the higher the risk. Again I grouped actors with similar risk frames.

I analyzed trust by interpreting the relation between the frames and risk frames. This is the dialogue step in the hermeneutics method, I combined the frames I found with the theory of trust (Breeman 2006). If an actor has a very negative frame about the sector: pig flats etc. and sees risks regarding animal welfare or public health about which he is very concerned it is not likely he will trust the sector in overcoming these problems on its own initiative. So the frames and risk frames are an interpretation of the reasons a representative has for and the combination of both frames says something about whether this representative suspends the risks which is necessary for trust.

4. Frames

This chapter contains the analysis of the frames which the actors use when talking about the intensive livestock sector. This chapter mentions the existence of frames within four subjects: framing of the intensive livestock sector (4.1), framing of scale increase (4.2), framing of the role of the government (4.3) and framing of the future of the intensive livestock sector (4.4). At the end there is a summary of this chapter (4.5). I use quotes that best resemble the content of my frames. The quotes are originally in Dutch so they are a literal translation, if necessary I give some additional information: this one can recognize by the initials WS.

4.1 Framing of the intensive livestock sector

All the actors, except the representative of PvdD more or less acknowledge the importance of the intensive livestock sector for the Netherlands. These actors frame the intensive livestock sector as an important sector which accounts for a fair share of our national economy and employment.

“Is the intensive livestock sector important for the Netherlands?”

Yes, if you look at it from an economical viewpoint. If you look at the economic impact of this livestock sector then it contributes to a part of our employment, export and contributes to our national production.”

representative VION

The representatives of the VVD, CDA, LTO, SGP, LTO, PVE, Nutreco and the ministry appear to have no doubts about the product or production process but give additional reasons besides economic impact as to why the sector is important for the Netherlands. The representative of the VVD states that the intensive livestock sector produces with high safety standards, therefore it is important for the safety of our food. The representatives of the CDA, SGP, LTO, PVE, Nutreco and the ministry also mention that the sector plays an important role in the value chain of the intensive livestock sector:

“Is the intensive livestock sector important for the Netherlands?”

Yes.

For which areas?

In different areas: A) for our own food supply B) for export C) as carrier for a substantial supplying and processing industry.”

representative CDA

The representatives of the CDA, Nutreco and SGP each add additional reasons. For the CDA the food security and pig breeding aspect this sector provides is important. The SGP thinks the knowledge and innovation within this sector and the value this sector has for rural life is important. The representative of Nutreco mentions that the intensive livestock sector is important for the cultural value of rural life.

All parties acknowledge the economic importance of the sector but within this acknowledgment there are differences in whether this economic aspect is the most important. The representatives of PvdA, GL, CU, PvdD, SP and D66 agree on the economic impact of the sector but at the same time they have some reservations. The representatives of GL, PvdD, D66 and PvdA question the future of this sector based upon its current activities. This indicates that there are some problems which need attention. The following statement of the representative of D66 best illustrates this:

“Is the intensive livestock sector important for the Netherlands?”

Rep1: The livestock sector is important for the Netherlands. At the moment the intensive livestock sector represents a large share of the livestock sector. There is a lot of discussion going on about how to shape the intensive livestock sector in the future.”

representative D66

The representative of the PvdD states that the sector is important but also sees an overestimation of this economic importance. The representative of the CU acknowledges the economic value of the sector but already addresses a problem: environmental problems.

In following sub texts I distil general frames the representatives present when thinking about the intensive livestock sector. Within each frame different representatives have different points of attention. Each of the representatives of the political parties uses one of the following frames when talking about the intensive livestock sector: a sector is a business frame (4.1.1), a mixed feelings frame (4.1.2) and a sector is not a business frame (4.1.3).

4.1.1 “Sector is a business” frame

The “sector is a business” frame acknowledges the importance of the economic principle within the intensive livestock sector. The representatives using this frame rather talk about “(means of) production” instead of animals. When talking about this sector, the business frame features the frequent use of words like “means of production”, “efficiency”, “entrepreneur”, “business”, “optimal way of producing”, “market”, “export”, “economics” etc. For example:

“Us of the VVD realize that if we make demands to the sector the *entrepreneurs* must be able to earn these demands back.”

representative VVD

“(thoughts about the sector, WS) A healthy and sustainable *branch of business*.”

representative CDA

“This (increasing demands within the sector, WS) leads to a group of *entrepreneurs* that have to be very good in their trade and as an *entrepreneur*. The consequence is a decrease in the number of businesses but that is an *economical principle*. That happens when you operate in an open *market*.”

representative ministry EL&I

“The intensive livestock sector *produces meat in a very optimal way*.”

representatives D66

“(The intensive livestock sector is sustainable, because WS) you make more efficient use of your *means of production*.”

representative VION

The representatives of VVD, CDA, D66, VION, the Ministry, LTO, PVE and Nutreco all frame the sector as a business. Between these representatives there are some nuances in this framing of the sector as a business. All the representatives except those of D66 and the Ministry are proud of the sector and think society is not well aware of how good the intensive livestock sector is performing:

“In general you see there is no national pride about agriculture.”
representative VION

The representatives of VION, PVE and Nutreco however, think the sector should do something to make society proud of the intensive livestock sector. These representatives think the sector should be proactive to achieve this:

“I think you have to listen carefully how society thinks the sector should change, you have to look carefully in which manner we keep animals and show this to society.”
representative Nutreco

The representatives of VION, PVE and Nutreco “blame” the sector for not educating society on the importance of the sector, while the representative of VVD, CDA and LTO “blame” society itself. The representatives of VVD, CDA and LTO have a more protective stance towards the sector which they express by stating that some people have a view on the sector which is not realistic and if change is necessary it must happen in a slow pace:

“Many people believe we can replace the current sector with an ecological one, which has its own imperfections.”
representative CDA
“They (political parties, WS) will grant us the time to make this change. That is something completely different compared to the viewpoint of letting the sector leave the Netherlands. The last one is an unnecessary discussion.”
representative LTO

In the general depiction of the sector the representatives of D66 take on a more neutral stance, the sector has positive and negative sides. Both have in common that the sector has to deal proactively with the problems concerning animal welfare, environment and antibiotics:

“You see the sector taking action on this (about concepts like antibiotics, animal welfare and environment addressed by NGO’s, WS). In the beginning the sector complains: “we have to do this, we have to do that” but they have a competitive advantage when in other countries the same discussions arise.”
representative Ministry

4.1.2 *“Mixed feelings” frame*

The representatives of SGP and CU that use the mixed feelings frame do not know whether to frame the intensive livestock sector as a sector in which the business element or the animal welfare component plays a larger role. They acknowledge that in the intensive livestock there is a large scale production which at the same time conflicts with animal welfare. Both actors weigh the economic benefits of the sector against texts from the Bible that say society should take good care of animals. The representatives are not certain whether the direction in which the sector is moving is the right way. The following examples show the struggle both representatives have:

“I wonder whether this industrial way of production we have developed is a good thing?”
“I see how very good entrepreneurs give attention to animal welfare, nutrition and other measures.”

That is why I say that it is possible to support these entrepreneurs on a larger scale.”

representative CU

“I think of efficiency, working efficiently which intertwines with animal welfare.”

representative SGP

A difference between both actors is that the SGP weighs it more from the point of animal welfare while the CU looks at it from a broader perspective: namely creation itself. The following example shows this difference:

“Yes, that we are not acting are not taking care of the planet but bleed it dry.”

representative CU

“That is one side of the story, the other side is that we are a Christian party and we focus ourselves on the Bible. The Bible says that it is possible to keep animals but you should take good care of them, the last thing therefore is of great importance. When I look to the intensive livestock sector then I see some friction there regarding this commandment from the Bible.”

representative SGP

4.1.3 “Sector is an industry” frame

The last frame is “sector is an industry” frame in which representatives use terms the media frequently uses to frame the sector in a negative way. The actors who use this frame are the PvdA, SP, PvdD, PVV and GL. They use terminology like “livestock factories”, “bio-industry”, “pig flats”, “a large number of chickens”, and “enormous pig houses”. This terminology tries to frame the sector as operating on a large scale. Besides this terminology they value the sector as an industry or a place where animals cannot live a good life. One of the actors even becomes sad when he thinks of the sector. All examples are in the next texts:

“Then (when thinking of the intensive livestock sector, WS) I see large livestock factories with a large number of chickens, especially chickens, fur animals and goats. I also see some other breeds of animals but I think these are the most important. I forgot to mention pigs, especially pigs and pig flats, that is what I think of.”

representative PvdA

“The first thing that comes to mind are enormous pig houses which do not make me happy. Why does it not make you happy?”

Well because these buildings prevent a decent lifestyle for the animals which live in them.”

representative GL

“Then (when thinking of the intensive livestock sector, WS) I think of too many animals with too little space, where it is impossible for animals to express their natural behavior.”

representative SP

“You mention the term bio-industry, what do you think when you hear this term?”

The stacking of animals, a price and economy driven industry with as a goal the production of animal proteins. The intensive livestock sector has little to do with animals anymore.”

representative PvdD

4.2 Framing of scale increase

An element of the intensive livestock sector debate is that of the scale increase that is happening or has already happened within this sector. Most of the representatives: except PvdA and D66, give as a reason for this scale increase that it is cost price driven, which can be seen in the next example:

“This cost price driven story is the reason for scale increase, which creates higher productivity: more piglets produced by sows, which forces small business out. This again gives problems with integrating these buildings into the landscape and also gives rise to the whole mega farm discussion..”

representative of the PVE

The representatives differ in reasons for the increase in cost price to: the representative of PVE mentions an increase in feed costs, the representatives of the CDA, SGP, Nutreco and the Ministry mention extra legislation and the representatives of the CU, LTO, VVD, PvdD, SP and GL mention a low price which customers pay for products from the intensive livestock sector. The representative of VION says the sector produces too many pigs, which drives the price down they should produce less. All the representatives to some extent acknowledge this scale increase as a fact or something that happens. The representative of PVE calls it an “economic law”, while the representative of VION thinks it is “inevitable”, the representatives of GL and CU say this is how the current sector works and the LTO thinks the scale increase should be possible. The representatives differ to which extent something should be done about this increase. I assign three different frames toward scale increase: scale increase is possible (4.2.1), scale increase with limitations (4.2.2) and no more scale increase (4.2.3).

4.2.1 Scale increase is possible

The representatives of this frame think scale increase must be possible as long as the features of the buildings are in line with existing regulations. The representatives who use this frame are those of the VVD, D66, CDA, SGP, CU, Nutreco and the LTO. The representatives of the political parties: so not the representatives Nutreco and LTO, say that they have an opinion about the scale increase, but that decisions about that have to be made on a regional level. In other words it is not their responsibility: other institutions are responsible for this. For example:

“Yes of course there is tendency that leads towards scale increase which in certain environments is troublesome, but again this is a spatial planning question, I do not deal with spatial planning!”

representative CDA

The representatives of VVD, D66 and CU have ideas about which landscapes are appropriate for larger farms. The representative of VVD finds it very important that the location of larger farms is in an open landscape. The representative of CU thinks the size of a farm should fit and connect with a landscape. The representative of D66 on the other hand believes that buildings that house livestock could be located in an agro production park of which the location can be almost anywhere. According to them an agro production park consists out of a group farmers with a different kind of produce that make use of each other’s waste, this means a closed circle of nutrients. All the representatives within this frame, say that as long as farmers keep to existing regulation, size is not the problem. Where the representatives of the LTO and VVD regard already existing regulation as the rules which should be kept, the representative of the CDA wants to discuss new rules with societal actors. The representative of the CU wants more emphasis on public health and animal welfare. When these conditions are met the size does not matter according to the representative of the CU, Nutreco and SGP:

“It is not that much about the size of such a business but more about what happens in such a business?”

Exactly, at the moment we think scale enlargement is possible but only with a lot of extras for animal welfare or the environment.”

representative SGP

“ (about what the representative thinks about scale increase, WS) The size is a result, what counts are the way these animals are kept. When the demands become more tight, size will decrease.”

representative Nutreco

The representative of SGP however mentions that there is a discussion going on in his party whether scale increase does not conflict with animal welfare. He also speaks of tension because scale increase leads to larger farms which threaten family businesses. Therefore the sector has to do more with the concept of niche markets. The representative of Nutreco thinks that the scale increase provides opportunities to invest in welfare and the environment and thinks it is necessary for businesses who serve the intensive livestock sector, like Nutreco, to stay in the Netherlands. He also mentions that due to more legislation the size will automatically decrease in the future, so size is a result and not a topic to discuss.

4.2.2 Scale increase with limitations

The representatives who use this frame are those of the PVE, VION and the Ministry. They think scale enlargement should be possible and is inevitable but scale increase should fit with the demands of the people living nearby the large farms. In other words: scale increase should be “socially accepted”. All the representatives agree that the sector has to deal with the social environment and that the scale of the farm has to fit the scale of the land. The representatives differ in their definition of what this scale should be. The representative of VION gives no further indications about the way this social acceptance should happen except that farmers must pay attention to gaining social acceptance. The representative of PVE states that a farm must have a human size, so rather multiple locations of big farms than one really immense farm. The representative thinks that for the community to accept a certain scale for a building within a certain landscape the farmer has to integrate with this community:

“I know a pig farmer with a big business, who from a technical perspective on: animal welfare, animal health care, manure and energy, has a good production. The only difference is he does it in very large quantities. He knows how to get the hands together in the village in which he operates. This because he is well integrated in his community.”

representative of the ministry

This frame has a strong connection with the risk of social acceptability which will be dealt with in chapter 5 (5.4). The representatives of VION and PVE agree that due to scale increase the total number of animals within the sector will decline, instead of rise, this they consider as a threat. This because a switch to more qualitative production will decrease the numbers of farmers, farmers that are able to make this shift will increase this scale but will not be able to compensate the loss of production. More on this subject in the second frame of subchapter 4.4.

4.2.3 No more scale increase

The representatives of this frame come from the PvdA, SP, PvdD and GL. They are against further scale increase in the intensive livestock sector. The representatives link the concept of scale increase with that of “livestock factories” and “mega farms” therefore they frame scale increase in a negative way. Which the next example shows:

“They (larger farms) are located pretty close to the rural community and they put pressure on the villages and the environment so I say very honestly: I do not think we need more mega housing.

So you connect the term scale enlargement with the term mega housing?

Yes.”

representative PvdA

To stop the scale increase the representatives of GL and SP want a limit on the size of a farm. As an example for such a limit they use cows. This is a bit strange because within society most of the discussions which involve larger stables deal with pigs. To solve this problem I use the concept NGE from the LEI. NGE is a norm for different economic activities on farms, it makes it possible to compare a farmer that grows wheat with a farmer that breeds pigs (Everdingen 2012). In this case it helps me transforming the number of cows the representative of the SP mentions into the corresponding number of pigs. The limit of the representative of the SP is 80 to 100 cows, the size of family business: the number at which a farmer still recognizes individual animals. When I transform this number of cows into pigs I get a number of 2400 to 3000 pigs, which makes it hard to recognize the individual animals, therefore his argumentation for family businesses remains unclear. The representative of the SP thinks the scale increase itself is a risk for turning the sector into an industry, therefore he wants to fix the scale at the current level. The limit of the representative of GL is higher- he mentions a value of 300 NGE, which is 250 cows or 7500 pigs, this limit however provides room for some future growth he states.

The representative of GL later in the interview also wants to give room to concepts that house a large quantity of animals but are cleaner or more animal friendly like the Rondeel stable, provided they stay under this limit of 300 NGE. The Rondeel stable holds 30 000 chickens, which represents a value of 75 NGE. The representative of GL thinks scale increase is a consequence of the imperfect market within the intensive livestock sector, this links up with the sustainability risks in chapter 5.3 . The representative of the PvdA wants no more scale increase, how he wants to achieve this is not clear. The representative of the PvdA also doubts the improvement of animal welfare within concepts like the “Rondeel system”. The representative of the PvdD thinks these concepts do not contribute to the welfare of animals:

“Those concepts (Rondeel stable, WS): positive developments and the attention and thoughts for this intensive livestock sector at the moment, do not take the cause away,. The principle of keeping that many animals is just not good. Because we oppose this principle this is not a solution we approve and therefore we want the animals to have outdoor access whenever they want.”

representative PvdD

They suggest society should move towards fewer animals, animal welfare should be the focus not the number of animals kept. The representative proposes to change the system. All three representatives of PvdA, GL and PvdD however are in favor of “animals outside”, the first two even propose a law for it.

4.3 Framing of the role of the government

As I described in chapter 1 there used to be a strong connection between politics, the government and the Landbouwschap: the iron triangle. This relationship has changed throughout the years. In this paragraph I look at how actors at the moment view the government and politics and how they think about the role they should fulfill regarding the problems within the intensive livestock sector. All representatives agree that the government should play a role.

“You need the government for affairs the businesses cannot take care of themselves, the government can play an important role in this. Animal diseases, manure legislation, certain prerequisites, the monitoring and execution of European rules, jobs of the government itself are all examples of such affairs.”

representative LTO

The representatives differ however in their opinion about the degree to which the government and politics should play a role. This research finds two frames about the role of the government/politics: less control from the government (4.3.1) and more control from the government (4.3.2).

4.3.1 Less control from the government

The representatives of VION, PVE, CDA, Ministry, LTO, SGP, Nutreco, and VVD believe the government should address topics and problems and that it is up to the farmers to solve these topics and problems within certain limits. All the representatives think the sector is responsible for their own problems:

“ (I) do not expect anything from politics because it is my firm conviction that politics is not going to solve things (problems within sector). In principle the market has to solve these things. If that is not possible and you think something has to happen you can arrange this by law or government.”

representative LTO

The representative of VION and LTO state that the government is specifically responsible for public health, while the other representatives just say the government and politics have to make sure the sector complies to EU legislation or a minimum level of legislation. The representatives of PVE, VION, Nutreco, LTO, SGP and VVD also state that besides setting norms the government is also responsible for stimulating innovation. The representatives of LTO, Nutreco and VION mention that the sector has to take the lead, they have to be pro-active, the government can help as the representative of Nutreco states, by adjusting regulations. This results in a wide support from the most representatives, the representative of CDA does not mention, for the approach of the “commission van Doorn” (Klink et al. 2011). The commission van Doorn created a vision for a sustainable intensive livestock sector

in 2020. In the process of creating this vision actors of the value chain and of nature and environmental organizations participated. This vision was worked out into a treaty: “the treaty of Den Bosch” (Klink et al. 2011) which was signed by all the actors.

The representative of SGP thinks the government is responsible for cohesion in the whole value chain and generating a general vision for the sector. The representative of the Ministry explicitly mentions the change in the role of the government, in the past the government was in favor of the sector, now the sector must solve problems on their own with the help of the government:

“In the past the government more or less was one with the businesses, that is a difference with the situation today. At the moment businesses have to operate within certain conditions. The government has several tools to help the businesses, but the responsibility lies primarily with the business. In the past they spoke of the Ministry of Agriculture keeping their own cows, but that is completely different nowadays.”

representative Ministry

The representatives of the VVD and CDA go even further: they want the sector to be self-regulatory and the government to monitor the actors who have control. Concrete this means a smaller role for the Animal Inspection Agency and therefore less government. The representative of VION on the other hand thinks this is not wise because by decreasing control free riders undermine positive developments. The representative of LTO also states that the government is responsible for tackling free riders.

4.3.2 More control from the government

The representatives of the PvdA, SP, PvdD, CU, D66 and GL think the government should make more regulations to ensure better standards of animal welfare, public health and environmental problems. The government must introduce and monitor the implementation and observance of these new regulations therefore, intensifying their current role in the value chain of the intensive livestock sector. They want a stronger directive role from the government:

“I am in favor of a strong enforcing government especially when we talk about the intensive livestock sector. We see the situation has derailed or is about to derail, if we do not regulate it economical interest will always win from public health or environmental interests.”

representative SP

The representatives of the SP and PvdD are most explicit about the stronger role of the government. The representative of the SP because he believes that the sector will allow economic interests to prevail, therefore a strong government is necessary. The representative of the PvdD because she has certain principles regarding animal welfare which are different from that of the sector and therefore the government should enforce them. The representatives of GL, PvdD, SP and PvdA want an expansion of the instruments of the government: the meat tax (GL, PvdD), guarantee sustainability investments for farmers (GL), educate consumer in eating less meat (SP) or an expansion of the Animal Inspection Agency (PvdA). Another example of a stricter role of the government is that representatives

of PvdA and SP think government should control the use of antibiotics more instead of veterinarians.

The representatives of the CU and D66 are less strict about the role of the government and believe the government should set goals and that the sector is free in measures on how to reach these goals. An example for this is that the representative of CU is critical about the use of antibiotics, however she does not want extreme measures by government in decreasing the use of antibiotics. She wants to cut the financial stimulus of a veterinarian earning money from the amount of antibiotics he sells. Both representatives however state that if the government exercises some form of control this control should be strict. The representative of the CU adds that when the sector fails in meeting those goals, the government should take action:

“How do you see a more controlling role of a government?”

This government must exercise good control. In this respect I am pretty strict, if certain goals are not met, then we should use additional demands and apply sanctions.”

representative CU

For some aspects there can be less regulation, for others there must be more regulation, for example on the subject of antibiotics. The representative of D66 states that the government has a responsibility to make the consumer aware of the production process. All the representatives, except the representative PvdD, within this frame support the commission van Doorn approach, although the representatives of SP and GL are skeptical about the measures regarding size of the stables. The representative of D66 adds that the government can be a threat in this value chain approach. This means it is ok for the value chain to arrange the problems commission van Doorn approach but if it does not work or not everybody cooperates the government might intervene.

4.4 Framing of the future of the intensive livestock sector

All the representatives acknowledge there is a future for the intensive livestock sector. Differences between the representatives are whether a change is necessary within this sector and who is going to pay for this change. The answer on the last question is equal for all the representatives of the actors: the consumer.

“An average basket of food in the Netherlands is pretty cheap, the food products may become a little bit more expensive, this to ensure the producer gets a fair price.”

representative Nutreco

When talking about the future of the intensive livestock sector I have identified three frames. The first one is a frame which states that the quality of the sector at the moment is high enough therefore major changes are not necessary (4.1.1). The second frame is about representatives who think major changes are necessary but the reasons they have for these changes have a competitive nature (4.4.2). The last frame is about major changes within the sector, the reasons for these changes come from a societal perspective (4.4.3).

4.4.1 *No real change is necessary*

The representatives of this frame state that the sector already made some effort in improving the quality of their products. They come up with examples of legislation that have changed and that already improved some quality attributes like: animal welfare. Further changes are not really necessary otherwise the sector in the Netherlands loses its competitive position. The next examples illustrate this:

“I think the previous period the Dutch agriculture has become more sustainable. That is why we are frontrunners and that is good. This happened due to pressure of society. You have to ask whether you continuously need this pressure because it can also have negative effect for the sector.”

representative VVD

“ During the previous years I worked hard to decrease the gap between Dutch and European legislation to that level of legislation that the sector wants.”

representative CDA

The representatives of VVD, CDA and LTO use this frame. The representatives of LTO and CDA agree that the quality attributes like use of antibiotics and preventing MRSA must improve, but they believe the sector is well aware of this. If an improvement of quality is necessary one has to give the farmers the time to make this improvement. Furthermore it is necessary that there are guarantees the customer pays for this value added. The representative of LTO emphasizes the importance of the whole value chain working together to make sure not only the farmers pay this added value:

“(about a farmer getting lower prices for a product with higher specifications, WS) That is why I say that everybody has a joint responsibility in that if the citizens have more demands they have to pay more for this.”

representative LTO

4.4.2 *Improve quality out of competitive reasons*

The representatives of this frame think the sector should focus on improving the quality of their products instead of focusing on lowering the cost price. The reason for this is the demand for higher quality products: ecological meat, eggs out of a Rondeel stable, etc., the competition of low cost countries like Brazil, Thailand etc. and the highly innovative network surrounding the intensive livestock sector in the Netherlands. The representatives think the Netherlands can be a frontrunner in the world on improving quality on the subjects of animal welfare, environment and animal welfare. They also agree that scale increase is necessary to pay for the costs of added value and because some farmers want to increase production.

“I think the perspective in the future is competing on quality instead of quantity or price.”

representative D66

“(about the future of the intensive livestock sector in the Netherlands, WS) To escape the pressure of an increasing cost price you will have to make a special product.”

representative PVE

“(able to deal with concerns from society, WS) The power of the sector is its infrastructure, we have a lot of knowledge in the golden triangle which makes it possible for us to be flexible.”

“We will get smaller and larger companies, so you might not wish for it but it will happen.”

representative VION

“I think that in a number of cases it is not possible to earn the investment back out of the market like for example with environmental demands. You have to earn those investments back by scale increase.”

representative ministry

The representatives of VION, Nutreco, PVE, Ministry, CU and D66 use this frame. Waiting for Europe is not an option because getting legislation passed in the EU takes a long time due to many member states and different interests, according to the representative of the ministry. The representatives of VION and PVE see a problem regarding this focus on improving on quality in relation to scale increase. As I state in chapter 4.2.2. the representatives think scale increase leads to a lower number of animals, this lower number of animals threatens our innovative network of researchers, suppliers and processors. Scale increase leads to fewer actors in the sector which also affects actors within the innovative network, so a certain production volume is necessary to keep let this network work optimal. This leads to a dilemma, scale increase is necessary to foster innovation but at the same time is a threat for the innovative network in the Netherlands. Another concern for the representative of PVE is that if the sector focuses on improving quality a clear labelling system is necessary to separate our higher value products from the lower value products.

4.4.3 Improve quality out of societal reasons

The representatives of this frame think the quality of production must increase. The way to measure this quality are the animals. The representatives state that large groups of voters are against or have problems with the way animals are being kept, therefore a positive change in this quality is necessary.

“(about the way animals are kept, WS) So apparently an animal has so much value that it is impossible to do with it as you like.”

representative SP

“(about why the PvdA has changed its viewpoint on the intensive livestock sector, WS) Because the societal basis for animal welfare is growing. We have seen the number of abuses concerning animals in the sector.”

representative PvdA

“It (animal welfare, WS) has to be better, but it is up to the farmer to do this, as long as the animal welfare level becomes better.”

“Well if you look towards the developments of the previous years you see them (supermarkets, WS) becoming more aware of the fact that within modern society support for the intensive livestock sector and the intensive meat production is declining.”

representative SGP

The representatives of SP, GL, PvdA and PvdD use this frame. The representative of GL thinks the main challenge of this increase in quality is to connect it with a growing demand of food. Therefore he and the representatives of PvdD and SP think a decrease in consumption of meat, eggs and milk is necessary.

The increase in price of products coming out of the intensive livestock sector raises some concern for the representatives of PvdA, GL and SP. The representatives of GL, PvdA and SP still struggle with the possible increase in price for the customers:

“Yes, but it does not have to be that we have to increase these prices radically because they would become too expensive. You have to question yourself whether this really is the case.”

representative PvdA

4.5 Recap of frames

In this part of chapter four I give a summary of all the frames the representatives use. To present a clear overview of all the frames the representatives have, I use a table.

Table 2: Summary of the frames the representatives use

	4.1 View intensive livestock sector	4.2 Scale Increase	4.3 Role of government	4.4 Future of intensive livestock sector
<i>GL</i>	Sector is an industry	No more scale increase	More control from government	Improve quality: societal reasons
<i>SP</i>	Sector is an industry	No more scale increase	More control from government	Improve quality: societal reasons
<i>PvdA</i>	Sector is an industry	No more scale increase	More control from government	Improve quality: societal reasons
<i>PvdD</i>	Sector is an industry	No more scale increase	More control from government	Improve quality: societal reasons
<i>CU</i>	Mixed feelings	Scale increase is possible	More control from government	Improve quality: competitive reasons
<i>D66</i>	Sector is a business	Scale increase is possible	More control from government	Improve quality: competitive reasons
<i>SGP</i>	Mixed feelings	Scale increase is possible	Less control from government	Improve quality: societal reasons
<i>PVE</i>	Sector is a business	Scale increase with limitations	Less control from government	Improve quality: competitive reasons
<i>Ministry</i>	Sector is a business	Scale increase with limitations	Less control from government	Improve quality: competitive reasons
<i>VION</i>	Sector is a business	Scale increase with limitations	Less control from government	Improve quality: competitive reasons
<i>Nutreco</i>	Sector is a business	Scale increase is possible	Less control from government	Improve quality: competitive reasons
<i>CDA</i>	Sector is a business	Scale increase is possible	Less control from government	Quality level is high enough
<i>LTO</i>	Sector is a business	Scale increase is possible	Less control from government	Quality level is high enough
<i>VVD</i>	Sector is a business	Scale increase is possible	Less control from government	Quality level is high enough

When analyzing the frames I can make four groups which have the same features: the first group are the representatives of PvdA, SP, GL and PvdD, they want a change in the way of production in the intensive livestock sector, although they differ in the degree of change. The second group are the representatives of D66, SGP and CU, who struggle over the direction in which the intensive livestock sector should move. They want an increase in the quality of production but think this can go hand in hand with scale increase. The third group are the representatives of PVE, Ministry, VION and Nutreco, they think changes have to come from within the sector and that the focus should lie on the consumer/local community. The focus on the consumer means making them aware more and stimulate them to buy more higher value products. The focus on the local community means embedding production in this local community, or create social acceptability. The last group are the representatives of CDA, VVD and LTO, they want a gradual change of the sector without too much interference from society. The frames also show that most of the representatives, have difficulties or problems with the concept of scale increase, this is discussed in chapter 8.2.

4.6 Contacts between representatives

In this last part of chapter four I describe the contacts all the representatives of the actors have with each other. I asked the representatives some questions about the contacts they have within politics and the sector. Between representatives of political parties I asked how they interpret this contact regarding subjects that relate to the intensive livestock sector. These contacts and viewpoints tell something about the network in which the representatives operate and therefore gives an insight how to strengthen trust. In the first part I focus on the contacts between politics and sector (4.6.1) while in the second part I focus on the viewpoints political parties have about each other regarding subjects that relate to the intensive livestock sector (4.6.2).

4.6.1 Contacts between politics and sector

This part of subchapter 4.6 focuses on the contact representatives of the sector or value chain have with each other and political actors. The table below shows the contacts the representatives have with other actors regarding the intensive livestock sector:

Table 3: Summary of the contacts between sector and politics

Representative of:	Has contact with:
PvdD	Sees a close connection between the lobbyist of the sector and some political parties. They rather talk to lobbyist on the subject of nature and environment.
CDA	Representatives of sector and value chain and experts.
VVD	Contact with the whole value chain, LTO for example has direct contact.
SGP	Has more contact with organizations out of the sector like farmers which are a party member, LTO and PVE, but they also has some contacts with for example the animal protection agency.
GL	Has contact with nature and environmental organization as well as farmers.
D66	They have contact with the framers organization: LTO, and nature and environmental organizations. The also contact scientist in Wageningen.
CU	Contact depends on the subject, mostly with farmers (also farmers which are party members) and nature and environmental organizations.

Ministry	The whole value chain and some nature and environmental organizations. They give information to political parties when they ask for it.
PVE	Is the lobby organization for the sector, so farmer organizations have direct control. Beliefs in cooperation with nature and environmental organizations. Has contact with the traditional political parties like: VVD, CDA and PvdA. Has more difficulties with D66 and GL, SP. They are negative about representatives of PVV.
LTO	All partners in the value chain, the ministry and institutions like animal protection agency. Political parties that support the government, in this case especially PVV. They have little contact with PvdD, there is nothing to gain there.
Nutreco	All the actors that work in or with the field of animal nutrition and the government. They try to inform political parties, focus on the parties that support the government. They have little contact with PvdD, their ideas are to extreme.
VION	Actors that work in the field of meat processing or meat production. They try to inform all political except PvdD because they themselves do not want contact.
PvdA	Everybody who is interested (LTO, concerned citizens, party members who are etc.)
SP	They talk with everybody (farmers organization, Wageningen university, concerned citizens).

The statements above align to a large extent with the frames the representatives have. The representatives of CDA, VVD and SGP have mainly contact with actors from the sector value chain or sector and do not mention environmental and nature protection agencies. The representative of PvdD prefers a lobby from nature and environment instead of one from the sector. There is no or little contact between the representative of LTO, VION and Nutreco and the representative of the PvdD because the viewpoints of the last are too extreme. The representatives of CU and D66 try to keep a middle ground position and say they have contacts with representatives out of the sector as well as representatives of nature and environmental protection agencies. The representatives of D66 even states that because they are a middle of the road party representatives of the sector and value chain and of the environmental and protection agencies are not viewpoints do not approach them often because they are less supportive to some of their interests. The representative of the ministry has contact with all the representatives.

Contacts that require some further attention are: LTO, VION, Nutreco and PVE who are very aware of having contact with all the actors in the value chain and even actors outside of the chain: environmental or nature protection organizations. The representatives of VION and Nutreco want to be leader in their part of the value chain and help other actors in their field business, this also means farmers. This connects to their stance that the sector itself has to deal with their problems. The representative of PvdA is very dual about his contacts, he states that he talks with everybody but is aware of the lobby from the sector and nature and environmental organizations, followed by statements that he really likes the value chain approach of the commission van Doorn. The representatives of GL and SP, specifically choose

to hear the farmers point of view, the representative of GL even admits that for too long his party only listened to the ecological farmer. The representatives of GL, PvdA and SP blame the LTO for being too defensive in their approach regarding the media, this connects to the discussion of change under chapter 4.4.2 or 4.4.3.

4.6.2 Viewpoints between political representatives

The following table shows the viewpoints all the representatives of different political parties have about each other regarding subjects that relate to the intensive livestock sector. To give a quick interpretation of these viewpoints I group them in a table. The rows in the table show the viewpoints of a representative about the representative/political actor in the column. The red color means the representative has a negative viewpoint about the representative/political actor, orange means a neutral viewpoint and green means a positive viewpoint, when the square is empty the representative does not mention a relation with this representative .

Table 4: Comparison of viewpoints between the representatives of the political parties

	PvdA	GL	SP	PvdD	CU	D66	CDA	VVD	SGP	PVV
PvdA										
GL										
SP										
PvdD										
CU										
D66										
CDA										
VVD										
SGP										
PVV										

The table shows that there are clearly two groups who have different opinions about each other regarding their viewpoint on the intensive livestock sector. On the one hand there are the representatives of VVD, CDA and SGP who differ in their viewpoints with the representatives of GL, SP, PvdD and PvdA: the box in the left corner of the table. The same the other way around is true for the representatives of PvdA, PvdD, SP and GL about the representatives of CDA, PVV, VVD and SGP: the box in the right corner of the table. The representatives of D66 and CU have different opinions about with which political parties there ideas about the intensive livestock sector align.

The representatives of CDA, VVD and SGP frame the opposing representatives of being unrealistic in their plans. The representatives of CDA and VVD are more extreme- they think the representatives of SP, PvdD and GL have romantic ideals for the sector which are not financially feasible. All three representatives agree on giving the farmers enough time to make the transition and doubt whether the representatives of especially SP, GL, PvdD and to a lesser extent PvdA give the sector the time necessary. The support for the PVV is there but not certain, like the representative of CDA says “I have to work hard to prove that I am right”.

The representatives of SP, GL, PvdA and PvdD frame their opponents as being slow in making the sector more sustainable and delaying new regulations. Also the deputy minister is slow with new regulation or postpones it, he is supported by the representatives of VVD, CDA and SGP and PVV. The representative of the Party of the Animals doubts whether the other parties which share the same viewpoint of the intensive livestock sector as this representative, share the same concept of sustainability. There is also a mismatch of some of the representatives of this group and the position of D66, this is because the D66 together with the representatives of PvdA and GL worked on concept legislation for animals having the right to be outdoor access. The opposing representatives are fiercer in their tone when they frame their opponents. They also accuse their opponents of blaming them for not cooperating while they are the ones who do not cooperate in creating a sustainable future for farmers. Some of the representatives think they might be able to convince the PVV of their viewpoints.

The representatives of D66 and CU form a group in between the two other groups. Both representatives think both camps polarize too much within the debate about the intensive livestock sector, therefore real change does not happen. They however acknowledge that this polarization itself also has a purpose, it sharpens the debate. The representatives do not like to be put in one of the two groups. The representative of the CU blames the deputy minister for causing this polarization.

This second part of subchapter 4.6 of contact makes clear that there are two groups who oppose each other and one group in between. Both groups are not homogenous in their support for each other viewpoints. The opinions about the middle group differ between both groups: this middle group itself is negative about this polarization. The key argument of the two opposing groups is about whether change is happening at the right pace: see 4.4.3 or 6.2. The outcome of votes in parliament regarding issues in agriculture is less certain, which was different during the age of the iron triangle.

5. Risk frames

In this chapter I give an overview of the perspectives on risks regarding the intensive livestock sector. The risks are in fact risk frames, but I chose to separate them from the rest of the frames because of the role they play in my conceptual part. Risk frames are important for trust analysis: the degree in which someone perceives risks as a threat says something about the amount of trust necessary to suspend these risks. Therefore risk frames can be an indicator of the amount of trust society has in institutions/organizations dealing with risks. I use the frame analysis method to construct the risk frames with help of phrases or words that refer to concern or worries about the intensive livestock sector. The representatives mention the following groups of risks: public health risks (5.1), environmental risks (5.2), sustainability risks (5.3), social acceptability risks (5.4), risk of scale increase (5.5) and competitive risks (5.6). In the end there is a summary of the different types of risks (5.7).

5.1 Public health risks

When I asked about risks of the intensive livestock sector almost all actors mention risks for public health. The most important element of this public health risk are the animal diseases, only the PvdA mentioned “fine dust” as a threat for the health which is not related to animal diseases. All actors, except VVD, mention antibiotics which relates to the prevention or treatment of diseases. The PVE makes a distinction between the types of antibiotics. VION only mentions risks for public health but does not specify them. So most of the actors acknowledge the threat of the intensive livestock sector regarding public health, but they differ in the intensity of experiencing these risks. There are three subgroups with each a different perspective on the intensity of these health risks. The first group of representatives thinks there is an overestimation of the public health risks (5.1.1). The second group thinks these public health risks are a consequence of business operations which the sector should deal with (5.1.2). The third and final group shows concern about the threat of public risks and worry about these risks (5.1.3).

5.1.1 “Public health risks are overestimated”

The representatives of LTO and CDA consider the intensive livestock sector as a risk or threat towards public health but at the same time downplay the risk. The first example is from the representative of LTO who says it is a risk, but personally has a different opinion. The second example is from the representative of CDA who downplays the importance of public health risks:

“Public health nowadays is regarded as a risk, so we have to do something about it. I myself think it is not that bad, but if there are concerns you have to look at them and treat them seriously.”

representative LTO

“Yes, life never is without risks and the intensive livestock sector is also not without risks, it has never been without risks and will never be without risks. Like any other activity is not without risks, sleeping is also not without risks.”

representative CDA

5.1.2 *“Public health risks are there and we need to deal with them”*

The representatives of Nutreco, VION, D66 and the Ministry have a neutral perspective on risks that relate to public health. When talking about the risks for public health the representatives appeal less to emotion, speak not of threats and think the sector is well aware of these risks and is working hard to find a solution to reduce the risks. Public health risks are a threat because they can hurt the image of the sector or they are there because of the mathematics of larger numbers. The first example is from a representative of D66 who shows little emotion in describing risks that relate to public health. The second example is of the representative of Nutreco, who addresses the problems with antibiotics shortly and then starts talking about how the sector is reducing those risks:

“Thinking of risks I think about the statistical risk that one (a farmer, WS) gets certain animal diseases which he cannot treat, this is maybe larger compared to the old days. Despite a more professional way of farming the reason for this is one keeps more animals together.”

representative D66

“Within the intensive livestock sector farmers still use too much antibiotics. Everyone in the sector nowadays agrees that we have to reduce the usage of these antibiotics.”

representative Nutreco

5.1.3 *“Public health risks are a threat”*

The representatives of this frame think public health risks are a threat because they can harm persons, so not because it threatens the image or is a statistical chance. The representative of the SGP agrees that it is a risk to which we cannot close our eyes because it makes people sick, although he thinks the risk is also relevant for the organic livestock sector. The representative of the PVE uses more urgency in his words: something must be done fast. He frames the risks in terms of “Achilles heel”, “absolute priority”, “strong and broad effort” and “at the moment it is quiet” which illustrate the priority of public health risks for the PVE. In the last sentence the representative hints toward a possible greater risk which the neglect of public health risks can have: the loss of social acceptability. The next text illustrates the use of these words:

“ (about the risk of animal diseases, WS) Although at the moment it is quiet in the pig sector it is an absolute priority that we do everything in our power to exclude animal diseases with the help of prevention and research... On this topic the sector realizes that these are issues on which you can give away a lot of societal credit.”

representative PVE

“~the question is not will there be a zoonosis epidemic, the only question is when. I am very concerned, really concerned... We are realistic, but if people die because of animal diseases we (politicians) have to act.”

representative PvdA

The representatives of CU and PvdD mention that the antibiotics use is a risk and even state that it can be dangerous for humans. This shows real concern for the people, which is also done but to a greater extent by the representatives of the PvdA, SP, PvdD and GL. Where the representative of CU frames the risks for the public health as dangerous, PvdA and GL frame the risk for the public health in terms of “the highest and most pressing risk”, “it is five to

twelve”, “it passes all boundaries”, “alarming reports”, “most dangerous bacteria for human health” and “terrible diseases”.

5.2 Environmental risks

The representatives of the PvdA, CU, SGP, D66, PvdD, PVE, Nutreco and GL mention environmental risks. Environmental risks are risks that are connected to the environment like manure, CO2 emissions etc. The representative of the PvdA just mentions the environment and gave no further specifications about what risks for the environment are. The representative Nutreco mentions that the manure problem is about closed cycles which should be dealt with on an international scale. The representatives of GL, CU and D66 show more concern and also mention that the intensive livestock sector has a negative impact on biodiversity. The first example is one of the representative of SGP who shows concern for the environment. The second example is that of the representative of GL who has more detailed concerns regarding the environment.

“Further pressure on the environment worries me, especially if we (government, WS) stop with the animal rights system. I wonder which effects this will have on the pressure on the environment.”

representative SGP

“(about other risks except public health, WS) Just the surface and ground water pollution and evidently the negative impact on the biodiversity and coupled to that the emissions of CO2 and ammonia.”

representative GL

5.3 Sustainability risks

Besides the environmental and public health risks the representatives of D66, CU, PvdD and GL also show some concern about the impact of these risks on future generations. The way in which the Netherlands produces food, places a high burden on our environment not only in the short term but also in the long term. Therefore these risks besides threatening human or animal life also threaten life in the future and therefore threaten sustainability:

“(about the risks of the intensive livestock sector, WS) Risks I see more broadly when it concerns the question what is a healthy and sustainable food pattern for people in the Netherlands. Are we really busy with or focused on a manner of production which benefits future generations or are we just stealing from them.”

representative CU

The representatives of D66 and CU use the concept of closed cycles to underline this sustainability message. The representatives say the sector should not move manure and products out of this sector across the whole world but process it locally. This connects with the viewpoint of the representatives of D66 who also think that the production process should happen locally and that the sector should work with concept of closed cycles. Closed cycles means using waste as nutrients in other parts of the world and prevent them from leaking into the environment (Bos 2010) .

5.4 Social acceptability risks

The representatives of the PVE, VION, Ministry, Nutreco and D66 state that the loss of social credit is also a risk. This risk can come from the neglect of public health risks. The PVE mentions the unnoticed

economic importance and importance on knowledge and innovation of this sector as a risk. This lack of attention should change: societal actors should know of the importance of this sector, therefore farmers should be working on their social acceptability. The public health risk threatens social credit, while showing the importance of the sector can enhance social credit. The representative of VION calls the importance of the sector: pride. The sector should make society proud of our agro-food sector because this is important for our license to produce. Therefore social acceptability is a risk. The next example shows the argument of VION on the lack of pride of the sector:

“There is nobody who realizes or is sort of proud of our agro and food sector. This is not only about the intensive livestock sector of which the image is strongly influenced by issues and issue management like animal welfare and public health. Generally there is no national pride regarding our agriculture.

This should change?

Yes that is important for your license to produce.”

representative VION

The representative of D66 also mentions that the sector should be aware of neglecting a subject like animal welfare which can have a negative impact on the opinion of societal actors. The representative of CDA also thinks the sector should be more aware of but takes a different viewpoint on social acceptability. The representative of the CDA mentions a separation of images and facts which influence the perspective of society on risks. This separation is deliberately done by actors who are not in favor of the intensive livestock sector. The sector has to be aware of these actors, because they can damage the reputation of the sector:

“You need to be aware and work on all the risks, it is also important to unite facts and images. What you see is that the anti-livestock industry separates these images.”

representative CDA

5.5 Scale increase risks

The representative of the SP thinks the scale increase is a risk itself. To him it is a risk because it diminishes contact between the farmer and his/her animals which generates more costs. It also contributes to a materialization of the animals within the intensive livestock sector: animals are seen as objects rather than animals:

“I think the right scale for a farm is one in which the farmer knows his animals. This is good for a good treatment of the animal, because you care better for an animal which you know. So scale enlargement on the one hand is a big problem and animals treated as object on the other. The latter means you see an animal more as a means of production instead of an animal with feelings.”

representative SP

5.6 Competitive risks

The representative of the VVD believes that extra regulation will create upward pressure on the cost price. This increase of the cost price will make the products of Dutch farmers more expensive. This is bad for trade and therefore threatens the competitive position of the farmers in the Netherlands:

“So if you ask for larger housing or certain adjustments to those buildings the entrepreneur must be able to earn these investments back. If this is not possible by increasing his price, which we see at the

moment he must produce more to lower the price. This is where tension occurs and this is the largest risk. We say as VVD, watch out with new demands, be careful with asking for more demands again, we must maintain our competitive position compared to other EU countries. If it is produced somewhere else cheaper under less optimal conditions, it will disappear in the Netherlands.”

representative VVD

5.7 Recap of risks

There is a clear distinction between representatives that see risks for the sector and representatives that see risks for society. The representatives of PvdD, GL, CU, SP, PvdA and SGP, think the risk they perceive mainly threaten society. The representative of D66 perceives risks that threaten society but at the same time states that neglect of these risks threatens the sector itself. The representatives of PVE, VION, Nutreco, Ministry, LTO, VVD and CDA mainly perceive risks that if not taken care of threaten the sector. The table below groups representatives according to the question: “Risks for whom?”, and gives a summary of the risks frames all the representatives have. If the cell is blank it means the representative does not mention the risk or I could not find the specific risk one in his/her statements. The plus and minus sign are the weights all the actors give to the risks, a minus sign therefore means an actor assigns less weight to a certain risk than a plus.

Table 5: Summary of the risks the different representatives perceive

		Risk of Public health	Environmental risk	Sustainability risk	Social acceptability risk	Scale increase risk	Competitive risk
<i>Risks for society</i>	PvdD	+	+	+			
	GL	+	+	+			
	CU	+	+	+			
	SP	+	+	+		+	
	PvdA	+	+/-				
	SGP	+	+/-				
<i>Risks for sector and society</i>	D66	+/-	+	+	+/-		
<i>Risks for sector</i>	PVE	+	+		+		
	Nutreco	+/-	+/-		+		
	Ministry	+/-	+/-		+		
	VION	+/-			+		
	LTO	-			+		
	CDA	-			+		
	VVD						+

Analyzing the table I can make groups who share the same risk frames, three representatives do not fit within one group. First, there is the group consisting out of representatives of SP, GL, CU, D66, PvdD, who show concern about the public health risks and think that our lifestyle is a risk for the planet. Second, the representatives of PVE, Nutreco, VION and the Ministry see the social

acceptance, acknowledge the public health risk but are afraid of the effect of these risks on the public opinion, therefore social acceptability is a risk which the sector should be aware of. Third, the representatives of LTO and CDA think there is a risk with public health but think this risk is overestimated, furthermore they see no risks except for the representative of the CDA in the form of opponents of the sector who threaten social acceptability. The representative of the PvdA and SGP shows much concern for the public health but do not mention sustainability risks. The representative of VVD only sees a risk in the form of new regulation which threatens our competitive position.

6. Trust

According to my definition trust relates to overcoming risks, see 2.1. Suspension and interpretation of reasons were both essential for overcoming risks. As I state in chapter 2, my definition of frames is one of an interpretation of reasons, risk frames are an interpretation of certain risks. This interpretation depends on frame of reference of the representative, and therefore is subjective by nature. Whether a representative might suspend these risks depends on how he frames his risks and on the frames he uses to give his/her vision on the sector. This chapter couples the frames of chapter 4 to the risk frames of chapter 5 and gives an estimate on whether representatives suspend the risks they see. By doing this I am able to tell something about the trust a representative has in the sector. The next figure illustrates how this works:

Figure 5: Example 1 of a trust scheme

Frames buyer:	Risks perceived by buyer:
Salespersons cheat on their customers	High risk of engine trouble

The example above is about customer A of chapter two who has to decide whether he will buy a car from car salesman A. The box named “frames buyer”, shows how a customer frames salespersons. The box named “risks perceived by buyer” shows the risks he perceives when buying a car. In this case the buyer has a negative frame about salespersons, based on some negative experiences with sales persons in the past: therefore the red color. He also has some bad experience with car engines, therefore the risk of engine trouble is of great importance to him: again the red color. Combining the negative frame with the high risk gives some ideas about whether this customer will suspend his risks and buys a car from salesperson A. In this example I would say the customer will not suspend his risk, due to a negative frame and high risk. The following example is the same but has an extra frame which changes the situation:

Figure 6: Example 2 of a trust scheme

Frames buyer:	Risks perceived by buyer:
Salespersons cheat on their customers	High risk of engine trouble
The legal system protects it citizens	

The change in the situation is that government has passed some laws that give consumer more means to sue a cheating salespersons. Customer A is a law abiding citizen, who beliefs the legal systems protects it citizens against dangers. He still has a negative frame about salespersons and is afraid of engine troubles but at the same time due to new legislation and his trust in the legal system he knows he can do something about it. Therefore on forehand it is not known what the decision of

this customer is going to make: suspend or not suspend the risk. This probably depends on the conversation he has with the car salesman. I use more elaborate trust schemes to give some ideas about whether representatives have trust in the sector to deal with the risks they perceive.

In the conceptual part I also talk about a collective level of trust. In this chapter I examine whether a form of collective trust is present or may be present in the future. In this chapter I first look at trust in the sector (6.1) because this relates to our main research question. After the trust in the sector I look to an issue this research found which has a implications for the future of the sector: role of the value chain (6.2) at the end I give a summary of this chapter (6.3).

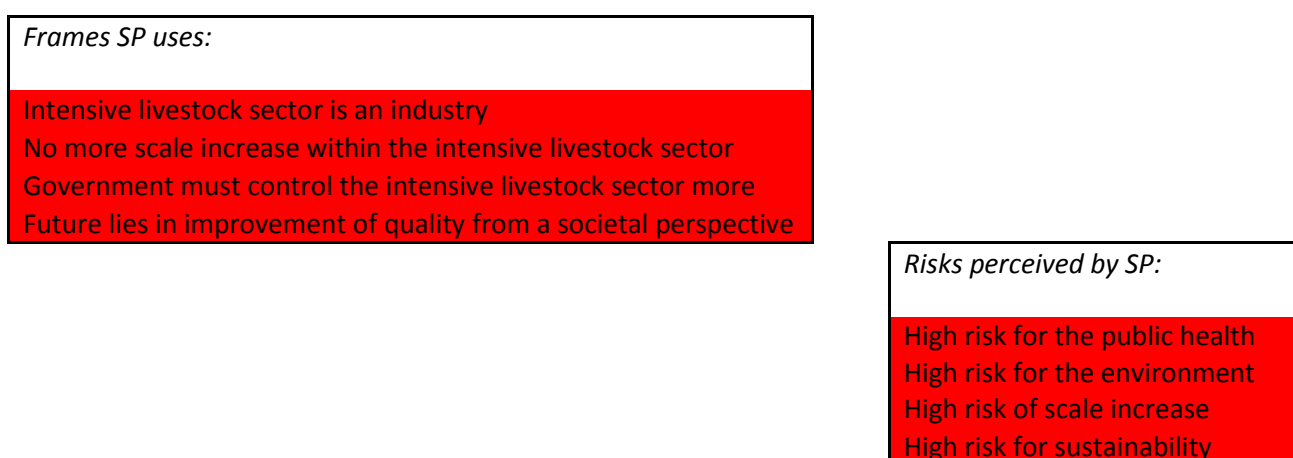
6.1 Trust in sector

This subchapter is about the level of trust the representatives have in the sector to deal with the risks as described in the previous chapter. There are differences between representatives about the level of trust they have in the sector to deal with these risks. For categorizing the level of trust representatives have in the intensive livestock sector I made three groups: those who do not trust the sector (6.1.1), those whose trust within the sector is thin (6.1.2) and those who trust the sector (6.1.3).

6.1.1 No trust within sector

The representatives in the no trust group perceive high risks on the subject of public health, sustainability and the environment coming from the sector, see chapter 5. High risks coming from the sector means a higher level of trust is necessary to suspend these risks. This means the frames about the image, responsibility or future of the sector have to be positive. The frames show a negative view about this sector, according to my interpretation a combination of high risks and negative frames means these representatives have no trust in the sector. Let me illustrate this with the following figure: the trust scheme of the representative of the SP (for the other figures see appendix 6):

Figure 7: Trust scheme representative SP



The “Sector is an industry” view on the intensive livestock sector is one which is not positive about this sector, and therefore has a restricting influence on trust. The frame of no more

scale increase has a negative impact on the risks this representative perceives. The frame of more government control in general implies that this representative has no trust in the sector to deal with the risks he perceives. The improvement in quality from a societal perspective requires a substantial change in the sector, this means that the way they are doing things at the moment in the sector is not good. The figure above shows that the representative of the SP uses frames that have a negative impact on the possibility of suspending certain risks. The risk frames the representative use to describe risks require a lot of trust to suspend. Therefore it is not likely the representative trusts the sector to deal with the risk another organization: in this case government, should intervene.

The same can be said for the representatives of PvdA , PvdD and GL (see appendix 6). The main reasons for not trusting the sector is that they have a different vision on the future of the sector and that the pace of necessary change is happening too slow. A good illustrating example of this perspective is the answer of the representative of Party if the Animals:

“Do you have trust in a sustainable and healthy future for the intensive livestock sector in the Netherlands?”

Of course, it would be awkward if we want to move towards a certain direction but we do not trust this direction ourselves. This direction however means a complete change of the system which is inevitable in the end. The normal practice at the moment is not sustainable.”

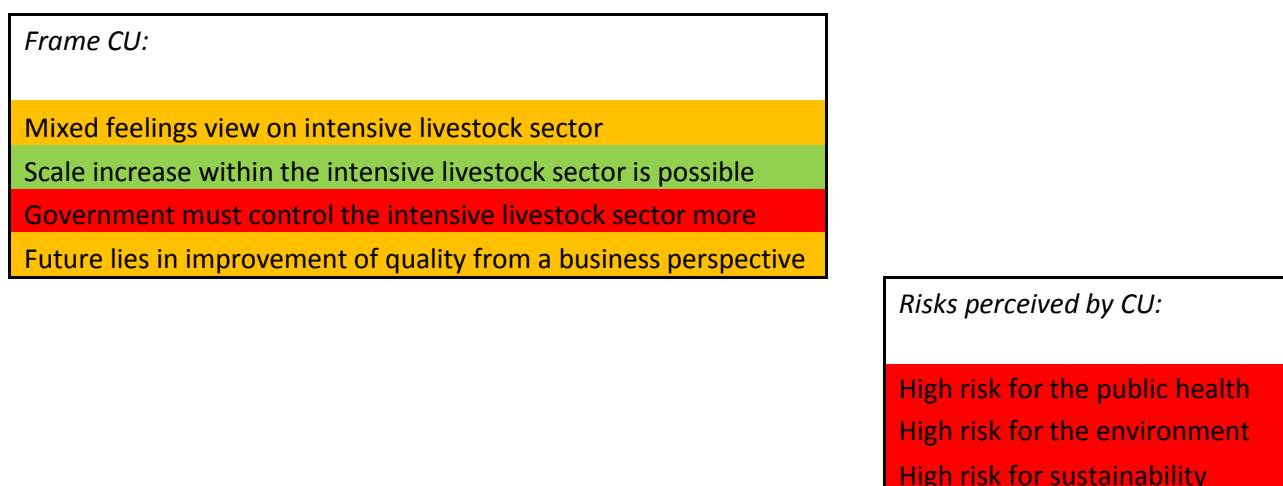
representative Party of the Animals

The representative has trust in a future but it has to be a future that connects to her view on this sector, if the sector does not change it will cease to exist is what the representative implies.

6.1.2 Trust within sector is thin

The representatives in this group perceive high risks on the subject of public health, sustainability and the environment coming from the sector, see chapter 5. High risks coming from the sector means a higher level of trust is necessary to suspend these risks. This means the frames about the image, responsibility or future of the sector have to be positive. The frames show a mixed view about this sector: it has frames that have a negative or positive impact on the suspension of the risks. According to my interpretation a combination of high risks and negative and positive frames means the trust of these representatives in the sector is there but it is thin. Let me illustrate this with the following figure: the trust scheme of the representative of the CU:

Figure 8: Trust scheme representative CU



The frames the representatives of the CU uses already show they struggle with the intensive livestock sector, scale increase is possible at the moment but the government should control more. In an ideal situation they want to see the sector take this role and they already see the sector thinking about change, but it is not there yet. The representative wants the sector to change because this gives the sector an competitive advantage, so change of common practice is necessary. In combination with a high risk perspective on public health, environment and sustainability, it is not exactly clear whether the representative trusts the sector to deal with the risks she perceives, the representative wants to have some form of control and is looking to an in-between solution. The same can be said for the representative of D66. The representatives of this frame share a vision of the future with the representatives of the sector; more quality with scale increase, but doubt whether the sector is able to make this change, maybe the government must enforce this change.

The following quote shows the difficulties the representative of CU with the issue of trust. The representative really wants to trust but is not exactly sure and also does not believe this is ever possible.

“Do you have trust in a sustainable and healthy future for the intensive livestock sector in the Netherlands?”

Yes my approach to the sector is one of trust but we (value chain and politics, WS) have to keep on working on this trust, there will never be enough trust.

representative CU

6.1.3 Trust in sector

The representatives of this group vary in the risk frames they perceive, but all the representatives except the one from SGP recognize that the risks they perceive threaten the sector. The social acceptability risk these representatives mention therefore has a negative effect on the level of trust necessary to overcome these risks, high social acceptability risks require more input from the sector in reducing these risks. Another representative sees no risks besides the extra regulations which society enforces upon the sector, see 5.6. The representatives of the LTO, VVD, CDA, PVE, VION, Nutreco, Ministry and SGP trust the sector

to overcome the risks chapter 5 mentions. The following trust scheme is representative for the group that trusts the sector to deal with the risks.

Figure 9: Trust scheme representative of Ministry

<i>Frame Ministry:</i>	
Intensive livestock sector is a business	
Scale increase is possible within the intensive livestock sector is possible but with limitations	
Government must control the intensive livestock sector less	
Future lies in improvement of quality from a business perspective	
	<i>Risks perceived by Ministry:</i>
	Moderate risk for the public health
	Moderate risk for the environment
	High social acceptability risk

The representative of the Ministry thinks the sector is a business which needs little government involvement. However the representative of the Ministry thinks some changes are necessary, there should be more focus on quality and scale increase should integrate with the environment. The representative of the Ministry worries about the social acceptance risks and to a lesser extent also about public health risks and environmental risks. The risk of social acceptability is a risk only the sector can diminish, because it threatens the existence of the sector. Dealing with the other risks aligns to this goal, therefore the representative of the Ministry puts his trust in the sector. The same can be said to a more or less extent for the other representatives. The most underlining example is that of the representative of the CDA:

“Do you have trust in a sustainable and healthy future for the intensive livestock sector in the Netherlands?”
 Yes, all the way.”
representative CDA

6.2 Collective trust in the value chain?

Above chapter is mainly about the individual level of trust representatives of actors have in the intensive livestock sector to deal with problems like animal welfare, environment and human and animal health. This subchapter indicates whether it is possible to say something about the collective level of trust representatives have in together solving these problems.

Collective trust is about moving from an I-intentionality to a we-intentionality, different social mechanism help to make this change in intentionality. The diffusion mechanism is about generating collective trust for new ideas with the help of a specialized network. Regarding the intensive livestock sector such a network was already present: the iron

triangle. The fragmentation of this network, contributed to a decrease in collective trust and therefore to the corrosion of this iron triangle (Breeman, 2006). During my research representatives mention a network which has a chance to establish collective trust again: the value chain. In this subchapter I analyze this possibility.

A specialized network consists out of a group of actors who share a vision about the future of their network, the greater the homogeneity about this vision the tighter the network is. A clear common vision is missing, however most representatives acknowledge that more attention to quality is necessary for the future of the intensive livestock sector. The responsibility for- and level and time frame of this change most representatives think is necessary differs, but they agree that more cooperation between actors is necessary. Representatives of VION, Nutreco, LTO, PVE, the ministry, SGP and D66 mention that a value chain approach can help in ensuring a more quality produce with a fair price for the producers:

“The government has to make the value chain itself responsible for a safe and sustainable production: best value chain and best business. You are responsible (the value chain, WS), deal with it on sector and business level. The government has to take care of actors in the chain that do not cooperate, besides that the government does not need to do anything.”

representative VION

The definition of a broad value chain differs between the representatives. Representatives of VION, LTO and D66, consider the value chain a network between producers, suppliers and consumers. The representative of the ministry, PVE, SGP and Nutreco speak out for including societal actors in such a value chain. The representative of the ministry points out that a combined approach between the sector and society works better in comparison to a government who tries to translate societal demands.

“An approach in which companies and societal organisations work together in tackling problems and fulfilling societal demands. It shows that a market-based value chain approach works better in comparison to a government who has to make legislation to fulfill these demands.”

representative ministry

The representatives of Nutreco and PVE also mention the controlling role, ngo's can have within a value chain approach. The representatives of PvdA, GL, SP, CU and VVD refer to a value chain approach by mentioning examples which refer to value chain cooperation, like the treaty of Den Bosch, the Rondeel stable and the label better life. These representatives support the continuation and expansion of these initiatives.

“We are positive about the report of the commission van Doorn. If all the big companies work together in a treaty like way, parliament is crazy if it does not do anything with it.”

representative PvdA

The examples in the paragraph above show that according to most representatives, except the one for CDA and PvdD, think a solution for the problems within the intensive livestock sector lies in an approach that involves many actors within the value chain. I interpret this as

actors willing to collectively trust each other. The representatives of D66, CU, SP, GL and PvdA, however clearly state that if change does not happen with the help of such a approach government has to intervene.

“There has to be some kind of threat like if you (farmers, WS) do not comply with certain agreements we are prepared to act (government, WS).”

representative D66

However there are some constraints I found in this research that might threaten the possibility to gain collective trust in a value chain approach. These constraints are: doubts about the role of the retail sector (1), no real leader in the chain (2) and stragglers problem in the sector(3). The representatives of LTO, PVE, CU, SGP, SP, GL, PvdA, VION and Nutreco are skeptical about the role the retail sector has in the value chain. The representatives think the retail sector has too much power, in determining the price a farmer gets for his produce.

“This is caused on the one hand by an oversupply and on the other hand because supermarkets still have a strong position within the value chain. The farmers are individual entrepreneurs who have difficulties to excess power within the value chain.”

representative SGP

The retail sector sells the produce to the end user: the consumer. The representatives belief that the retail sector in the end will go for the product with the lowest cost price, because of the demand for these products by the consumer. They believe the retail sector can do this because they have such a strong position in the value chain. This strong competition is mainly there because of the size of organizations in the retail sector and international competition.

“In the end we (value chain, WS) all have to do it, this (treaty of Den Bosch, WS) does not work if retail gets cheaper products out of Germany or countries even further away.”

representative Nutreco

Despite the strong position of the retail sector the representatives of the Ministry and PVE have some good examples of the retail sector fulfill their agreements. The representative of VION together with those of the PvdA and PVE thinks the retail sector will make the chain more sustainable because it is a new competitive attribute to win more customers. However most representatives are suspicious about the role, this they emphasize by stating that it is important that the retail sector participates in projects like the treaty of Den Bosch.

“We think it was important because supermarkets where present in the negotiations about this treaty, the supermarkets also recognized the important role of the market.”

representative LTO

The question about which actor/organization should take the lead when the retail or other parties in the chain do not keep themselves to the agreements relates to the second constraint, who is the leader in the chain. The representative of Nutreco thinks that the processors of meat, like VION need to put pressure on the retail, they already put pressure on the suppliers. The representative of VION however states that he has too little power to

put retail under pressure, it is up to the market and international economy. The representative of the Ministry states that a lot of actors in the value chain point to each other: the value chain in the end has to do it and VION is most appropriate for the role of chain director. The representatives of GL, D66 and CU even state that the government should put more pressure on actors who are not cooperating. This government involvement is something the representative of the farmers' organization LTO and other representatives of the sector oppose. Representatives of LTO and GL both underline the fragmentation of farmers, farmers are only individuals so they have to unite. The representative of SP on the other hand does not have much confidence in uniting farmers, regarding the large amount of power cooperatives have like Campina. So it appears there is no leadership in this value chain and that possible leaders like retail or VION are not available for comments or do not want to lead. The government could be a leader but the representatives of sector and value chain and some of political parties are firmly against this. This to me is a clear indicator of not enough trust between the partners within the chain and underlines the importance of a leader. This leadership is necessary to establish cohesion between the actors in the value chain to make the change to a higher value produce.

Threats for cohesion between the actors in the value chain are farmers who are not willing to cooperate. The representatives of GL, VION, SP, Ministry, D66, PvdA, SGP and PVE all talk about the problems with farmers who do not want to change and therefore are lagging behind on new legislation: stragglers. The representative of GL and VION state they do this because it gives them a comparative advantage, not producing under more stringent regulation makes your products cheaper. Stricter control by public authorities is a solution to this problem according to most of the representatives. Representatives of GL, PvdA and SP, see chapter 4.6.1 or 4.6.2, mention that organizations like LTO and political parties like CDA and VVD represent the interests of stragglers and therefore prevent stricter control because these stragglers are more present in the (public) debate:

"They do it (delaying new legislation on animal welfare, WS) only to silence a minority of complaining farmers within their own organization."

representative GL

The representatives of VVD, CDA and LTO say they want to give the farmers who have to change more time and a possibility to earn their investments back: see chapter 4.6.2. The representative of PVE and D66 thinks the sector wants to change but thinks the conservative power lies in uncertainties regarding their future like a low price. However both recognize the stragglers problem, as the example of the representative of PVE shows who is in search for a solution to create collective trust in one approach:

"What you see now is an initiative for manure processing to do this it costs fifteen or eighteen or twenty two euro per unit, then people will deliver as long as processing costs are more expensive on the market. When the free market or export becomes cheaper for processing manure some farmers will dispose their manure that way, a processing unit is halted because it needs constant supply the whole year round. We need to have a model how to organize this in a good way. Initiatives can be an obligation to process at a unit for farms that produce too much manure or that farms with an oversupply of manure help financing such a collective solutions as a processing unit."

representative PVE

The examples and statements above show that collective trust in a value chain approach might be possible but that it is far from certain. Most representatives are skeptical about the intentions and role of the retail sector this requires a strong leader to keep them to their agreement, such a leader is not present at the moment. Besides the problems with the retail sector there is also the problem of stragglers within the intensive livestock sector itself. There is conflict between the representatives about whether farmers' organizations represent the interests of stragglers or frontrunners.

6.3 Recap of trust

This subchapter summarizes the results of my assessment of trust the individual representatives have in the sector. It also looks whether there is a collective level of trust in a possible solution for the problems within the sector. The table below gives an overview about the level of trust representatives have in the sector to deal with the problems they perceive. A minus stands for no trust, a plus/minus resembles doubt and a plus means the representative has trust.

Table 6: Summary of the chapter about trust

	Trust in the sector
<i>PvdD</i>	-
<i>PvdA</i>	-
<i>GL</i>	-
<i>SP</i>	-
<i>CU</i>	+/-
<i>D66</i>	+/-
<i>PVE</i>	+
<i>Nutreco</i>	+
<i>VION</i>	+
<i>Ministry</i>	+
<i>LTO</i>	+
<i>VVD</i>	+
<i>CDA</i>	+
<i>SGP</i>	+
<i>PVV</i>	X

The representatives of the PvdD, PvdA, GL and SP have no trust in the sector dealing with the risks they see in relation to this sector. The representatives of CU and D66 doubt whether the sector can cope with the risks while all the remaining representatives are confident the sector can. For the time being trust is present, but the position of both the CU, D66 is not guaranteed and the exact stance of the PVV remains unclear. There appears to be a collective level of trust in a value chain approach. However in generating this trust there are some constraints: the role of the retail sector, no leadership in the value chain and the free rider problem.

7. Conclusion

In this chapter I answer my main research question. I do this by first answering the research question about frames and second the research question about risks. Both research questions provide me with information necessary to answer my main research question. The last research question reflects upon my main research question and therefore is dealt with last.

What are the frames political parties use within the debate about the intensive livestock sector?

A categorization of all the frames the representatives use, results in four groups. There is the group with the representatives of PvdA, GL, SP and PvdD who all want to stop scale increases within the sector and want more attention for the animal and the environment in this sector. Then there is the group which contains the representatives of D66 and CU who think scale increase should be possible but want more regulations to ensure safety for the animal and the environment in these larger stables, they do not care if these regulations are stricter than European regulations. The other group consists of representatives of SGP, VION, PVE, Ministry and Nutreco who think changes are necessary for the existence of the sector with an important role for social acceptance. The last group consists of the representatives of VVD, CDA and LTO, who think there is no need for change in the sector and if change is necessary then at a very slow pace not exceeding the level of Europe. The table below shows the representatives that have more or less similar frames:

Table 7: Groups of representatives with similar frames

Different groups:	Different representatives:
<i>Group 1: Sector has to change now</i>	PvdA, PvdD, SP and GL
<i>Group 2: Sector has to change</i>	D66, SGP and CU
<i>Group 3: We will change</i>	VION, Nutreco, PVE and ministry
<i>Group 4: We will gradually change</i>	CDA, VVD and LTO

What are the risks that have to be suspended to ensure trust in the intensive livestock sector by political parties or actors within the sector?

Between the risks representatives perceive I analyze a distinction between the risks coming from the sector and risks that threaten the sector. The main risk the representatives of the first two groups in the above table perceive relate to risks coming from the sector: risks for the public health; especially the use of antibiotics, risks for the environment, sustainability risks and risk of scale increase. The main risk for representatives of the third group is the social acceptance risk. This means that the sector has to take into account the social environment otherwise this social environment will restrain the sector in their activities. These social acceptance risks connect with the public health and environmental risks these representatives also mention, public health and environmental risks can increase or decrease social acceptance. Of the representatives in group 1 and 2 who see a lot of environmental and public health risks, only the representative of D66 perceives such a social acceptance risk. The last group acknowledges risks for public health but is not convinced of the threat of these risks. The risks they see mostly threaten the sector in its

competitiveness or just by opposing the sector. The possibilities to diminish these risks lie not within the sector itself but outside the sector.

The answers on the research questions above help in answering my main research question:

Do political parties trust the intensive livestock sector in the Netherlands to deal with the problems regarding: environment/public health/animal welfare/spatial planning?

All the representatives from sector and politics see a future for the intensive livestock sector, even the representative of PvdD. The way to achieve this and how this future looks like differs. The representatives of group one want radical changes, which according to them, the sector is not able or unwilling to realize therefore the government should act. Opposite to these representatives who want radical changes are the representatives of group four who want little or no change at all and no government involvement. The representatives of group three are much more aware, in comparison to the representatives of group four of the changing demands of customers and citizens and anticipate at them by diminishing social acceptance risks which relate to other risks like public health risks and environmental risks. Representatives of group three also mention they are aware of many of the risks and are already working on reducing them. The reasons for this are that they do not want too much government involvement which leads to many rules and regulations. The representatives of group two appear to trust the sector to make some changes, but also think that the government should control this process of change and must act when necessary. So **the majority of the representatives of the actors have trust in the sector** to deal with problems regarding the intensive livestock sector in the future.

After my conclusion on the level of trust between representatives, I answer my last research question which deals with strengthening or creating trust.

Are there possibilities to strengthen trust between political parties and the intensive livestock sector?

My answer on the main research question shows that when looking to the representatives separately, the majority of the representatives trust the sector, however for some representatives this trust is thin. On a collective level there appears to be trust for a value chain approach, even by representatives who do not trust the sector. This approach means that the whole sector has to take responsibility in making the chain more responsible so not only the farmers. The wide support among representatives for the treaty of Den Bosch confirms this view. Most representatives of political parties however state that if change does not come from the sector or value chain itself government has to enforce change.

This research found three constraints that might obstruct the efforts in achieving a collective level of trust. First constraint most representatives mention is the role of retail, they are not certain retail will cooperate in ensuring that the customers pay a higher price for a higher value produce. The second constraints also relates to the role of the retail, namely leadership in the value chain. At the moment there is no clear leader in the value chain who can control or correct the partners within the value chain, there are however candidate: retail or VION. The last constraint is about the stragglers, affects the cohesion within the value chain. Stragglers themselves are a problem and therefore strict control is necessary, however some

representatives think these stragglers needs more time. This again frustrates other representatives who accuse them of brokering the interest of stragglers.

8. Discussion and limitations

This chapter discusses my results in the light of theory and content. The first part compares the results of my research with already existing research from a theoretical perspective, what is the added value of my research to already existing theory (8.1). The second part compares the results of my research with already existing research about a vision for the intensive livestock sector, what is the added value of my research to already existing future perspectives (8.2). The last part of this chapter is about the limitations of my research (8.3).

8.1 Theoretical discussion

My research is innovative because I combine the concept of trust with that of frames. This combination has not been used often. However I found some research that combines the concept trust with the concept of configurations. Configurations consist out of groups of people with a similar perception on certain subjects in the world around us. The research that I use to compare my research it from a theoretical viewpoint is that of: trust in the reform of the common agricultural policy (Termeer et al. 2011). The research of Termeer et al. uses a more direct approach to measure trust. In comparison my approach gives an overview of all frames that might influence trust and how they help in overcoming the perspectives on risks representatives of actors have: see appendix 6. This gives a more detailed view on the level of trust in **a future** and the constraints there are for generating trust in **a common future**.

This focus on the future, my assessment on trust I belief is another new thing my research adds to existing theory. The theory of trust one of my supervisors describes in his book (Breeman 2006) is mainly about the trust building concept in retrospect, while I assess a level of trust in something that still has to happen. To determine whether my assessment was right, time and a research with a retrospective focus is necessary.

8.2 Discussion about results

In general the results of my research add to the debate the perspective of political parties on a future for the intensive livestock sector. I compare the results of my research with the findings of the commission van Doorn (8.2.1.) and the findings of the commission Alders (8.2.2.), two reports with a clear vision on the future of the intensive livestock sector. The report of the commission Alders (Alders and de Groot 2011) was on behalf of the state secretary of EL&I and its goal was to report on the future and the scale of the intensive livestock sector. I look to which degree my research aligns with, diverts or adjusts the results of both commissions. I focus on the points that relate to my research that add something to both researches.

8.2.1. Commission van Doorn

The most important findings of the commission van Doorn from now till 2020 at the current intensive livestock sector needs to transform into a “careful livestock sector”(Klink et al. 2011). Within this future vision for the sector not the accommodation is leading but the animal itself, not the final product is leading but the production process. The food this sector produces needs to be safe but also the process needs to be safe and accepted by the society. This future vision implies that scale and number of animals are a result from measures of

making sustainability central in business practice. It also means a higher grade of professionalization of the farmer and the actors in the value chain.

The commission van Doorn mentions scale increase as the solutions for the intensive livestock sector but does not address some dilemmas that this solution implies. My research shows some dilemma's regarding scale increase as solution. The dilemmas, I found regarding scale increase, differ between representatives. Most representatives except those of the PvdD agree that some growth should be possible. However the representatives of PvdA, GL and SP, have clear definitions about what scale is appropriate for farms. They gave no answer to the question what if a stable is animal friendly but is of a higher scale then the representative wants. The representatives of PvdA, GL and SP couple scale increase to abuses in the sector, while it can also help in preventing these abuses. This can make them blind for new innovative solutions with scale increase but also a plus on animal welfare. The representatives in my study who think scale increase should be possible also state that not each scale is possible anywhere. However they have no clear definitions to assign types of stable to types of landscapes. Most of them also state that it is something of spatial planning for local communities, therefore ignoring the problems citizens have with placing large structures in public space.

The only representatives with a clear cut solution are the representatives of the ministry, VION and PVE. They think scale increase should be possible but the only way by doing this is by embedding the larger scale stable into the environment. These representatives of VION and PVE however see a different dilemma regarding scale increase. The representatives state that new technologies have a positive effect on scale increase because it is possible to keep more animals. However these technologies are expensive , which means that not all farmers can keep up, which leads to an increase in scale of the individual farms but a decrease in the total number of animals in the sector. For the remaining farmers who increase their scale it is not possible to replace the production volumes of the farmers who quit. A decrease in the total number of animals and the total number of companies means the value chain becomes smaller and with it the innovation network. These representatives suggest that scale increase as a solution might threaten the existence of the current livestock sector. That is why they state that if society wants to have the most innovative agriculture network society in the Netherlands has to approve a certain number of animals within its borders to keep this network here.

The report of the commission van Doorn speaks about a common vision and shared intentions, my research shows that the representatives I interviewed each to their own extent support this vision and intention. However on one of the major issues the dilemma of scale increase there is no consensus between representatives of sector, political parties and value chain. This can influence trust in a public-private approach, actors can get disappointed in the direction the sector is moving and try to bend the direction which can frustrate others. Despite the lack of consensus on the dilemma of scale increase my research also shows that there are indications for a collective level of trust in a value chain approach between the representatives of sector, politics and value chain. The report of the commission Alders is a better base of comparison for these constraints, therefore I deal with these constraints in the next paragraph.

8.2.2. Commission Alders

The results of the report of commission Alders (Alders and de Groot 2011) conclude that business as usual is not an option, change is necessary. The report states that fulfilling the basic demands for production in the Netherlands or EU does not give a license to produce. This conclusion is not new, a lot of initiatives to change the sector were not realized. Reasons for this were: an absence of concrete goals or time paths (1), the diversity of the value chain (2), not a focus on the free riders but on the frontrunners(3) and it is the questions whether increasing costs can be translated into a higher price(4). The greatest challenge according to the report is to include the whole value chain in the discussion about the future of the intensive livestock sector and the role government and sector should play in this future.

My research gives additional explanations about constraints the report of the commission Alders mentions. An explanation for the absence of concrete goals or time path might relate to lack of leadership in the chain, this suggestion is not mentioned in the conclusions of the commission Alders. An explanation for the difficulties in translating higher costs into higher prices my research gives, is the role of the supermarkets. The report of the commission Alders does not mention the important role the retail sector plays in realizing these higher prices. My research adds to the problem of freeriders, that I do not speak of freeriders but of stragglers. It is not that farmers do not pay for certain arrangements in the sector, they delay legislation and therefore have a comparative advantage to farmers who already invested in techniques to obey this new legislation. The last point my research adds is that the role of the government must be small because actors in the sector and value chain are skeptical about politics and government. Possibilities for government and politics to align with sector are there in the form of NGO's or societal organizations.

8.3 Limitations of the research

This subchapter is about the limitations of this study. There are two groups of limitations: the first is about limitations in the research design (8.3.1). The second group is about the limitations of the interview (8.3.2).

8.3.1 Limitations of research design

The limitation of my research design is about how well the representatives I interview represent their actor, this is important for generalising my results. For this generalisation also the time frame is important.

- *Degree of generalization*

The degree of generalization of this research is limited, because I use an interpretative approach rather than a statistical approach. By using a statistical approach one draws conclusions from a dataset, those conclusions are easier to verify. My conclusions are interpretations based on statements of representatives. Although I have discussed most interpretations with my supervisors and put a lot of effort in explaining and illustrating my interpretations there is always the possibility one interprets the statements differently.

- *Representations of actors*

Three remarks can be made on how well my actors represent the political landscape, sector or value chain. Among the representation of political parties the perspective of a

representative of the PVV is missing, because the PVV did not want to cooperate (1). Retail organizations did not want to cooperate, so the general picture of the value chain is not complete (2). The LTO as representation of all the farmers in the intensive livestock sector is not feasible, therefore there are simply too many different farmers with different interests (3).

- *The time frame/ new elections*

This research is based on the members of parliament that sat in parliament during the previous election: 2010. Despite four out of the six members not return in parliament after the September 2012 elections, I do not expect radical changes in the stances of political parties. The reason for this is that new members of parliament first have to develop their own perspective on the subject of agriculture.

8.3.2 *Limitations of interviews*

The limitations are about not well defined concepts or questions in my interviews. Therefore some concepts might not be very clear which leads to different answers of representatives.

- *No clear distinction between trust in government and politics*

During the interviews in this study the terms politics and government sometimes got mixed up. The members of parliament and government are different actors: who have different roles. The government must make legislation and regulation and the members of parliament have to approve these laws. During my analysis it was hard to say whether representatives were talking about government or politics.

- *Better definition of risks*

There are risks that come from the sector and risks that threaten the sector. I did not make a clear distinction between these risks: this might be misunderstood by some representatives. Therefore I should have made this clearer during my interviews.

- *Not enough focus on benefits*

Where there are risks there are benefits. I asked about the importance of the sector, but I think I could have made things clearer if I had just asked whether the sector also has benefits. This is because benefits are the counterpart of risks.

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Appendix 1 Short analysis of election programs political parties

In the election programme of the Social Democrats they mention that the intensive livestock sector collides with animal welfare, public health, quality of the country life and the environment. The sector is not sustainable according to society therefore politics should make it sustainable. Concrete suggestions about how to do this are absent, they only want a stop on the use of antibiotics.

The Liberal Party thinks that local communities are responsible for the spatial planning of agriculture, housing and nature. The agriculture plays an important role in our typical Dutch landscape and is of great importance for our export and food security. Where there are clear conflicts between public health and economic benefits, public health is not subordinate Animal welfare within the intensive livestock sector is important but must not harm our competitive position.

The Christen Democratic Party acknowledges the importance of the agricultural collective in the Netherlands and the role of the intensive livestock sector. It therefore wants to connect economic, ecological and social sustainability. The agriculture needs to connect with the landscape. People should be more aware of what food products they buy. The chain must become more sustainable but this is the responsibility of individual farmers. The sector must base scale increase on quality instead of cost price, the family business is the starting point.

The Socialist Party wants a more sustainable food production. CO2 emissions are high in the intensive livestock sector due to large numbers of livestock, therefore livestock should be reduced. Due to this large numbers living conditions for animals are not animal friendly, therefore scale increase should stop and welfare norms should be adjusted. The party also wants to reduce the usage of antibiotics, promote biological food and ensure a higher price for the farmer.

The Green Party states that our behaviour downgrades animals into products and causes risks for our own health and that of the environment. The animal welfare and environment should get more attention therefore we as a consumer should be more aware of what we consume. This in the end will lead towards a higher price for the farmer which creates financial space for a better production. They address spatial problems in their intention to restore the connection between city life and country life. The Green Party does not mention scale increase as a significant problem.

The Social Liberal Party wants to give green light to innovation within the intensive livestock sector but wants to prevent developments which harm the environment public health and animal welfare. Scale increase is possible but must have a positive effect on public health, animal welfare and the environment. To reduce the burden on future generations consumers must eat less meat and must buy more sustainable products. This is necessary to make the whole chain more sustainable. Larger stables should fit the landscape in which we place them, for example no large stables in an open landscape.

The Conservative Christen Party acknowledges the importance of the agriculture for our economy, country life and food security. It underlines problems with the environment, animal welfare and scale increase, but thinks the sector is pushed this way by price critical consumers and globalisation. To counteract these problems government should stimulate positive developments in the sector and make consumers and supermarkets more aware of their responsibility. The political party in their

election programme also mentions the intensive livestock sector should integrate with the landscape.

The Christen Socialist Party thinks agriculture should contribute to preserve our country life and think within the sector economics and ecology should go hand in hand. The pressure of the sector on the environment should decrease and the sector must pay attention to societal unrest. They want to limit scale increase of stables and control the usage of antibiotics, also norms for animal welfare should increase. Public health and animal welfare they only mention as subjects that should be dealt with in the ideal situation of the family business, implicating existing farms do not have to pay attention towards it.

The Freedom Party sees not much problems concerning the intensive livestock sector. They think the intensive livestock sector should disappear, but the definition of this sectors and reasons why and how it should disappear are absent. They also want more rights for animals but if this is applicable for animals in the intensive livestock sector is not clear.

The Party for Animals puts the interest of animals, nature and the environment upfront. They state the intensive livestock sector is a threat for animal welfare, environment and public health, therefore government should expand regulation and decrease these size of the sector. The location of the stables needs some regulation to. Government should also stop the development of “mega stables” and stimulate consumers to consume less and more sustainable. The location of stables in the landscape

Appendix 2 Persons interviewed

- Dhr. Van Dekken
- Dhr. Frenken
- Dhr. Van Gerven
- Dhr. Grashoff
- Mw. Van Hagen
- Dhr. Den Hartog
- Mw. Ten Have-Mellema
- Dhr. Jansen
- Dhr. Jongerius
- Dhr. Koopmans
- Dhr. Langenberg
- Dhr. Maljaars
- Mw. Snijder-Hazelhoff
- Dhr. Van Straaten
- Mw. Wiegman-van Meppelen Scheppink

Appendix 3 General interview questions

1. How do you describe the current intensive livestock sector in the Netherlands?
2. Is the intensive livestock sector part of agriculture?
3. Is the intensive livestock sector important for the Netherlands?
4. How important is the intensive livestock sector for your organisation/political party?
5. Which risks that relate to the intensive livestock sector do you see ?
6. How should these risks be dealt with?
7. What is scale increase according to your political party/organization?
8. What is the opinion of your organization/political party about scale increase (is scale increase possible if it diminishes the risks)?
9. With whom do you have contact about the problems regarding the intensive livestock sector?
10. Which role (actives, passive, authoritarian etc.) do you expect from government and politics in the debate about the intensive livestock sector?
11. How is the relation between politics and sector? Do you think it is necessary to strengthen this relation? If yes, why and which opportunities do you see in realising this?
12. Do you have trust in a healthy and sustainable future for the intensive livestock sector in the Netherlands?
13. How does this future look like, which direction do we have to take?

Appendix 4 Specific questions for non-political parties

1. What is the role of your organisation in the debate about the intensive livestock sector, do you actively or passively influence politics?
2. Do politicians in the Netherlands listen to you?
3. Can your organization survive without an intensive livestock sector?

Appendix 5 Specific questions for political parties in this example GL

1. You do not mention agriculture as an element of spatial planning, does this have a reason?
2. It is said that higher demands for the farmers will make them bankrupt, how do you see this?
3. Within the principles of your political party the freedom of individuals is important. Does this principle clash with your plea of extra legislation for farmers?
4. Your political party wants to give farmers more market power to ensure a better quality for a higher price, how do you think this should be realised?
5. Your political party wants a higher price for meat by increasing the Value Added Tax, but does this not strive with the equality principle in your party? The reason I ask this is because by increasing the price meat becomes more expensive for people with a lower income.
6. What is the position of other political parties regarding problems within the intensive livestock sector at the moment? Has this changed recently?
7. Is the Party of the Animals leading in the debate about the intensive livestock sector?

Appendix 6 Trust schemes

This appendix shows all the trust schemes for the different representatives. Each trust scheme has shows frames and perceptions of risks. I give my interpretation based on these frames whether a representative will suspend the risks he or she perceives. Therefore the trust scheme can is an interpretation of the level of trust. The red colour means the frame influences trust in a negative way or if it is a risk that trust is necessary to suspend this risk. The orange colour means the frame influence is hard to tell or if it is a risk that it is hard to tell whether trust is necessary. The green colour means that the frame influences trust in a positive way or if it is a risk that it does not affect trust within the sector.

<i>Frame PvdD:</i>	
Intensive livestock sector is an industry	
No more scale increase within the intensive livestock sector	
Government must control the intensive livestock sector more	
Future lies in improvement of quality from a societal perspective	

<i>Risks perceived by PvdD:</i>
High risk for the public health
High risk for the environment
High risk for sustainability

The “Sector is an industry” view on the intensive livestock sector is one which is not positive about this sector, and therefore has a restricting influence on trust. The frame of no more scale increase has a negative impact on the perception of the risks this representative perceives. The frame of more government control in general implies that this representative has no trust in the sector to deal with these risks. The improvement in quality from a societal perspective requires a substantial change in the sector, this means that the way they are doing things at the moment in the sector is not good. The figure above shows that the representative of the PvdD uses frames that have a negative impact on the possibility of suspending certain risks. The risk frames the representative use to describe risks require trust to suspend. Therefore it is not likely the representative trusts the sector to deal with the risk another organization (in this case government) should intervene.

Frame GL:

Intensive livestock sector is an industry
No more scale increase within the intensive livestock sector
Government must control the intensive livestock sector more
Future lies in improvement of quality from a societal perspective

Risks perceived by GL:

High risk for the public health
High risk for the environment
High risk for sustainability

The “Sector is an industry” view on the intensive livestock sector is one which is not positive about this sector, and therefore has a restricting influence on trust. The frame of no more scale increase has a negative impact on the perception of the risks this representative perceives. The frame of more government control in general implies that this representative has no trust in the sector to deal with these risks. The improvement in quality from a societal perspective requires a substantial change in the sector, this means that the way they are doing things at the moment in the sector is not good. The figure above shows that the representative of the GL uses frames that have a negative impact on the possibility of suspending certain risks. The risk frames the representative use to describe risks require trust to suspend. Therefore it is not likely the representative trusts the sector to deal with the risk another organization (in this case government) should intervene.

Frame PvdA:

Intensive livestock sector is an industry
No more scale increase within the intensive livestock sector
Government must control the intensive livestock sector more
Future lies in improvement of quality from a societal perspective

Risks perceived by PvdA:

High risk for the public health
Moderate risk for the environment

The “Sector is an industry” view on the intensive livestock sector is one which is not positive about this sector, and therefore has a restricting influence on trust. The frame of no more scale increase has a negative impact on the perception of the risks this representative perceives. The frame of more government control in general implies that this representative has no trust in the sector to deal with these risks. The improvement in quality from a societal perspective requires a substantial change in the sector, this means that the way they are doing things at the moment in the sector is not good. The figure above shows that the representative of the PvdA uses frames that have a negative impact on the possibility of suspending certain risks. The risk frames the representative uses to describe risks

focus on public health and environment. The representative is very concerned about public health he speaks of an upcoming crisis. Therefore it is not likely the representative trusts the sector to deal with the risk another organization: in this case government, should intervene.

Frame D66:

Intensive livestock sector is a business
 Scale increase within the intensive livestock sector is possible
 Government must control the intensive livestock sector more
 Future lies in improvement of quality from a business perspective

Risks perceived by D66:

Moderate risk for the public health
 High risk for the environment
 High risk for sustainability

The representatives of D66 frame the intensive livestock sector as a business in which scale increase is necessary. The representatives want the sector to change because this gives the sector a competitive advantage, so change of common practice is necessary. In an ideal situation they want to see the sector take this role and they already see the sector thinking about change, but still it is not there, therefore the government in the end should enforce this change if the sector lags behind. The risk frames the representative uses to describe risks require trust to suspend. This representative sees opportunities for the sector to deal with the risks, and thinks the possible involvement of government is a stick to make this change happen. This possibility of government involvement however makes the trust in the sector thin.

Frame PVE:

Intensive livestock sector is a business
 Scale increase is possible within the intensive livestock sector is possible but with limitations
 Government must control the intensive livestock sector less
 Future lies in improvement of quality from a business perspective

Risks perceived by PVE:

High risk for the public health
 High risk for the environment
 High social acceptability risk

The representative of the PVE thinks changes are necessary for the future of the intensive livestock sector and that these changes need to fit the social environment. He considers this as an important risk, together with risks regarding the environment and public health. The risk of social acceptability is a risk only the sector can diminish, because it threatens the existence of the sector. Dealing with the other risks aligns to this goal , therefore the representative of the PVE puts his trust in the sector.

<i>Frame Nutreco:</i>
Intensive livestock sector is a business
Scale increase within the intensive livestock sector is possible
Government must control the intensive livestock sector less
Future lies in improvement of quality from a business perspective

<i>Risks perceived by Nutreco:</i>
Moderate risk for the public health
Moderate risk for the environment
High social acceptability risk

The representative of Nutreco thinks the sector is a business which needs little government involvement. However the representative of Nutreco thinks some changes are necessary, there should be more focus on quality and scale increase should integrate with the environment. The representative of Nutreco is worried about the social acceptance risks and to a lesser extent also about public health risks and environmental risks. The risk of social acceptability is a risk only the sector can diminish, because it threatens the existence of the sector. Dealing with the other risks aligns to this goal , therefore the representative of the Nutreco puts his trust in the sector.

<i>Frame VION:</i>
Intensive livestock sector is a business
Scale increase is possible within the intensive livestock sector is possible but with limitations
Government must control the intensive livestock sector less
Future lies in improvement of quality from a business perspective

<i>Risks perceived by VION:</i>
Moderate risk for the public health
High social acceptability risk

The representative of VION thinks the sector is a business which needs little government involvement. However the representative of VION thinks some changes are necessary, there should be more focus on quality and scale increase should integrate with the environment. The representative of VION is worried about the social acceptance risks and to a lesser extent also about public health risks. The risk of social acceptability is a risk only the sector can diminish, because it threatens the existence of the sector. Dealing with the other risks aligns to this goal , therefore the representative of the VION puts his trust in the sector.

Frame SGP:

Mixed feelings view on intensive livestock sector
 Scale increase within the intensive livestock sector is possible
 Government must control the intensive livestock sector less
 Future lies in improvement of quality from a societal perspective

Risks perceived by SGP:

High risk for the public health
 Moderate risk for the environment

The representative of SGP thinks the sector needs little government involvement and scale increase is possible. However the representative of SGP also states that a farmer has to take good care of his animals and that an increase in quality on this subject is necessary. The representative worries about the public health risks and to a lesser extent about the environmental risks. He does not see animal welfare as a risk because the farmers that support his party are already dealing with those issues. This representative thinks change is necessary from his religious belief but he puts his trust in the farmers that support his political party to deal with the risks.

Frame LTO:

Intensive livestock sector is a business
 Scale increase within the intensive livestock sector is possible
 Government must control the intensive livestock sector less
 No real changes for the future are necessary

Risks perceived by LTO:

Low risk for the public health

The representative of LTO thinks the sector is a business, that needs no government involvement also scale increase should be possible. Changes are not necessary, problems in the sector are being dealt with. There are no real risks except for public health risks but those are exaggerated. This representative has a lot of trust in the sector.

Frame CDA:

Intensive livestock sector is a business
Scale increase within the intensive livestock sector is possible
Government must control the intensive livestock sector less
No real changes for the future are necessary

Risks perceived by CDA:

Low risk for the public health
High social acceptability risk

The representative of CDA thinks the sector is a business, that needs no government involvement also scale increase should be possible. Changes are not necessary, problems in the sector are being dealt with. There are no real risks except for public health risks but those are exaggerated. Another risk about which this representative worries is social acceptability. The risk of social acceptability is a risk only the sector can diminish, because it threatens the existence of the sector. Therefore this representative has a lot of trust in the sector.

Frame VVD:

Intensive livestock sector is a business
Scale increase within the intensive livestock sector is possible
Government must control the intensive livestock sector less
No real changes for the future are necessary

Risks perceived by VVD:

High competitive risk

The representative of VVD thinks the sector is a business, that needs no government involvement also scale increase should be possible. Changes are not necessary, problems in the sector are being dealt with. There are no real risks, except risks that threaten the competitiveness of the sector like extra legislation. This representative has a lot of trust in the sector