

## 5 Important trends and required skills in the Netherlands

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### 5.1 Materials and methods

The people interviewed for this research were drawn from a diverse group of interests, sectors and regions. Twenty-three farmers, experts and stakeholders with various backgrounds were interviewed. The farmers chosen are representatives of their production sector, because most of them hold an administrative function in a farmers' union. All the important sectors of Dutch agriculture are represented, each from a region in which that sector is most concentrated (see paragraph 5.1.2).

Stakeholders were chosen out of the socio-technical network of agriculture. The decision makers (government and policy makers) and representatives of tourism, water and nature conservation organisations who were interviewed represent the stakeholders from the perspective of society. The tourism, water and nature conservation organisations also represent the new market for diversifying farmers. The experts interviewed (scientists, bankers and accountancy officers) were selected on the basis of either their knowledge of farmers, sectors and regions or their expertise in entrepreneurship. From the supply chain, buyers were chosen from traditional branches of Dutch agriculture, such as a seed potato trading house, cooperative auctioneers of floricultural and horticultural products, and a supplier and a buyer of agricultural products.

**Table 15 Breakdown of interviewees in the Netherlands**

Category	Number
Government and policy makers	2
Product chain	4
Tourism, water and nature conservation	4
Scientists	3
Banking and accountancy	2
Farmers' representatives	8
Total number of interviews	23

Thirteen of the twenty-three interviewees were present at the discussion workshop. In the discussion workshop a handout was provided listing all the trends and skills, including their frequency. The participants were asked to comment on this list, using the questions a. do people recognize the results, or do they think some trends/skills are missing? b. do the results surprise them? c. do we have to change the order of importance? After this, some important skills were separated out and people were asked how they would recognise an entrepreneur with such a specific skill and whether it is possible to develop that skill.

## 5.2 Description of Dutch agricultural situation

The Dutch agricultural sector is quite unique in Europe because of its intensity and specialisation. This chapter provides a short description of the agricultural situation in the Netherlands, based on information from LEI and CBS (2005). The total surface area of the Netherlands is about 41.528 km<sup>2</sup>. The proportion of this in agricultural use is 23.360 km<sup>2</sup>, which is 56% of the total area. This agricultural land is dominated by five main production branches: arable production, horticulture, fruit and ornamental trees, grazing livestock farms and intensive livestock farms. Table 16 describes the number of farms per sector, the total number in the Netherlands and Table 17 gives an overview of the farm size per main sector.

**Table 16 The number of farms per sector and the total number in 2004**

Branches	2004
Arable farms	12,627
Horticulture	10,745
Fruit and ornamental trees	4,572
Grazing livestock farms	42,266
Intensive livestock	5,900
Other	7,745
Total number of farms in NL	83,855

**Table 17 Number of farms per farm size category (ha) per main sector in 2004**

Main type	< 1	1 - < 5	5 - < 30	30 - < 100	> 100	total
Arable	0	1,024	6,074	4,736	793	12,627
Horticulture	2988	5,027	2,219	466	45	10,745
Fruit and ornamental trees	738	1,852	1,810	160	12	4,572
Grazing livestock farms	1495	7,192	18,033	15,003	543	42,266
Intensive livestock	1303	2,159	2,303	135	0	5,900

The main agricultural products appear in the table below. The products with the highest volumes are milk, potatoes (for consumption) and sugar beet.

**Table 18 Production of main agricultural products (x 1000 ton) in 2004**

Product	2004
Arable production	
Wheat	1,224
Potatoes for consumption	5,217
Starch potatoes	2,270
Sugar beets	6,292
Seed unions	1,225
Milk production	10,532
Vegetables and fruit	
Champignons	260
Cucumbers	435
Peppers	318
Carrots (winter)	342

<b>Product</b>	<b>2004</b>
Tomatoes	645
Apples	436
Pears	208
Meat production	
Beef	188
Veal	200
Pork	1,299

Table 19 shows the age of farmers in the Netherlands. It is worth noting that only 12.9% of farmers are younger than 40 years of age, 66.7% are aged between 40 and 64 years and 20.4% are older than 64 years.

**Table 19 The number and percentage of self-employed farmers per age category (years) in 2004 in the Netherlands**

<b>Age category</b>	<b>&lt; 25</b>	<b>25 - 29</b>	<b>30 - 39</b>	<b>40 - 49</b>	<b>50 - 64</b>	<b>&gt; 64</b>	<b>Total</b>
Number of farmers	70	484	9,738	21,183	32,139	16,275	79,889
Percentage	0.09%	0.61%	12.2%	26.5%	40.2%	20.4%	100%

Only 3.5% of the working population works in agriculture, forestry and fishing (Table 20).

**Table 20 The proportion of the Dutch national population working in agriculture in 2004**

<b>Sectors</b>	<b>Labour year x 1000</b>	<b>Percentage (%)</b>
Agriculture	218	3.4
Forestry	5	0.08
Fishing	4	0.06
Total	227	3.5
Other non-agricultural	6,237	96.5
Total	6,464	100

Despite of the small proportion of the population working in agriculture and the decreasing number of farmers, agriculture still contributes 1.9 percent (2004) to the gross domestic product. The Netherlands is an important exporting country of agricultural products. Table 21 shows the import and export of the main agricultural products by value (in millions of euros). The table shows that the most important export products are ornamental products (flower bulbs, flowers), meat and dairy products.

The specialised character of Dutch agriculture has resulted in a regional concentration of sectors, mainly related to the various soil types. Logistic hubs and processing industries are strongly related to regional concentrations of sectors. Hence, not only does the socio-economic importance of the agricultural complex differ by region, but so too do the shares of its sub-complexes.

**Table 21 The total Dutch export and import value of agricultural products in millions of euros (2004)**

<b>Product</b>	<b>Import</b>	<b>Export</b>
Wheat	1,643	836
Oilseed	1,375	344
Cattle fodder	1,668	2,588
Starch	1,378	2,514
Sugar	470	801
Horticultural seeds	195	617
Ornamental products	1,080	7,221
Vegetables	928	3,163
Fruit and nuts	2,258	2,136
Processed products of potatoes, vegetables and fruits	1,458	2,618
Cattle	520	1,084
Meat	2,415	5,315
Eggs	152	577
Dairy products	2,421	4,289
Fish	1,229	2,093

### 5.3 Results

The results are based predominantly on the interviews and have been added to or commented on using results from the national discussion workshop.

#### 5.3.1 Trends and developments

In the interviews, participants appeared to find it difficult to identify ‘real’ trends. Instead they identified developments in agriculture caused by these trends. For example, increases in farm size were mentioned frequently, even though it is caused by other general trends (increasing costs for land, labour and energy, open markets). For this reason the trends and developments in the environment of farm businesses are categorized in trends that appear in the environment of agricultural business (Table 22) and specific agricultural trends (Table 23).

Only the trends mentioned most are reflected in the tables. The character # shows the number of interviewees who mentioned a specific trend. Each trend is accompanied by a quotation in order to explain the results.

**Table 22 Trends in the environment of agricultural businesses named by Dutch interviewees**

<b>Trend</b>	<b>Explanatory quotes from interviewees</b>
1. Globalisation of the market (#12)	Quote from a policy maker: “...the globalisation of the market has a great impact on agriculture in the Netherlands. Dutch farmers have higher costs for land and labour, so price competition with other countries is very difficult. Dutch farmers should try to add value to their products and find other income sources.”
1. Demand for Food Safety and Animal Welfare (#11)	Quote from a policy maker: “...The demand for food safety results in high certification demands. Certification becomes part of the license to deliver.”
3. Access of countries to the EU (#10)	Quote from a scientist: “...farming without subsidies obliges farmers to engage in market-orientated entrepreneurship. The difference from other (non-agricultural) sectors will disappear.”
4. Pressure on the rural area (#10)	Quote from a fruit grower: “...Land use planning leads to a decrease in agricultural land use, in favour of urbanisation, business and industries, nature.”
5. Growing power of buyers (#7)	Quote from a vegetable grower: “...Farmers do not cooperate in large sales organisations, and are therefore less powerful than big retailers. In a bulk production market with a surplus, buyers are able to switch to other producers, so cooperation among bulk producers is necessary.”
6. Changing food patterns (#7)	Quote from a scientist: “...During the weekends, consumers have time to prepare their food and demand food of high quality and good flavour. During the week they want food that can be prepared easily and quickly.”
7. Growing demand for other functions and services (#5)	Quote from a water conservation organisation: “...” The demand for other functions and services is increasing: nature and water conservation, preservation of the rural area, sustainability, recreation and tourism. Farmers are having to create combinations of these new functions and services.”

Other trends and developments in the environment of agricultural businesses that are mentioned are: price-sensitive critical consumers (#6), socially responsible entrepreneurship (#4), health (#4), individualisation (#3), bio-based economy and bio-fuels (#2), increasing welfare levels (#1) and insufficient capacities of buyers to innovate (#1).

**Table 23 Trends in agriculture named by Dutch interviewees**

Trend	Explanatory quotes from interviewees
1. Scale increase (#11)	Quote from a dairy farmer: <i>"...Cost price reduction is crucial in response to globalisation and the increase of costs e.g. labour, machinery, land. Cost price reduction means that farm size must increase."</i> Quote from a horticulture farmer: <i>"...Farms are becoming bigger, so they are becoming a business partner for supermarkets. Supermarkets demand a certain farm size to be a partner in business."</i>
2. Growing significance of product quality and added value (#9)	Quote from the CEO of a seed potato trading house: <i>"...Due to high costs and the high quality of the soil, labour, machinery, infrastructure and knowledge in comparison with other countries, added-value and product quality are becoming more important for Dutch farmers. Bulk production is moving to other (new) EU countries."</i>
3. High demands posed by legislation (#5)	Quote from a vegetable grower: <i>"...The Netherlands are always quicker to introduce stricter legislation (e.g. emissions of pesticides and nutrients). No level playing field in Europe and the world. This is negative for competition on the international market."</i>
4. Agriculture is declining (#5)	Quote from a bank employee: <i>"...The number of farms is decreasing (3% per year) because of increasing costs and low product prices. Size is becoming more important to survive (economies of scale)."</i> Quote from a fruit grower <i>"...Support for agriculture is declining, as we have seen in the debate about subsidies for agriculture. Consumers ask why agriculture is treated differently from other small enterprises."</i>

Other trends and developments in the agricultural business mentioned are: specialisation (#2), professionalising (#1), automation (#1), innovations (#1) and increasing costs of land (#1).

Many of the trends mentioned by the interviewees can be classified as developments in the market and supply chain. Almost all interviewees noted the importance of globalisation and Europeanisation for the agricultural market: an increasing share of agricultural production is traded internationally. This indicates a further degree of integration of countries in international agricultural trade. Most interviewees agree that added-value and product quality are becoming more important for Dutch farmers, due to high costs and the high quality of soil, labour, machinery, infrastructure and knowledge in comparison with other countries. Bulk production will move to other (new) EU countries, which can produce these products at a lower cost price. The access of new EU countries is not always seen as a threat by interviewees: new countries are potential export markets, because they have a large population and their purchasing power is increasing. Through further internationalisation, products that function as substitutes for traditional Dutch agricultural products are appearing on the national market (soya for milk, etc.).

The reform of the EU Common Agricultural Policy means that subsidies are decreasing and that there will be less market regulation. This is exerting pressure on the income of farmers and prompting a switch to free market products. Horticultural and intensive livestock farmers are used to running a farm business without subsidies, so they are more market-oriented; however, this is a new phenomenon for arable and dairy farmers. The number of farms in the Netherlands will decrease further, because of increasing costs and declining price levels. Farmers have to produce more and more and to increase cost efficiencies through increases in scale and specialisation. Some interviewees think

that a surplus of free market products will be created through the EU policy reforms, leading to low prices and incomes for all farmers. Because the bulk production market is operating with a surplus, buyers are unreliable in their agreements with producers.

It is increasingly important that farmers become aware of their external environment and the policy of national and local government in respect of available subsidies (for specific areas or products). There will also be a growing demand for non-agricultural functions and services, such as nature and water conservation, preservation of rural areas, recreation and tourism. In addition, products with a regional branding are becoming more popular with consumers. Farmers should be pro-active in diversifying agriculture and explore what they can offer to (new) stakeholders. However, the supply of other functions and services can be contradictory to existing agricultural functions of the farm (e.g. a campsite near a pig stable).

The discussion workshop generated some useful comments. For example, increasing energy costs were not an important trend in the Dutch situation (energy is a small part of total costs, and bio-energy production is not attractive given the high costs of land and labour). It was also surprising for some participants that the professionalisation of Dutch agriculture was mentioned only once. The number of growers with a higher education level is increasing, which is leading to the further professionalisation of the sector (producing products with higher quality, food quality and safety, growers are more active in the market, etc.). Innovation will become increasingly important, according to the participants, because in this way farmers can reduce production costs and increase yields and added value.

### 5.3.2 Skills

The open question about which skills are needed to continue to run a farm business resulted in a wide interpretation of the meaning of 'skills', including personal characteristics, attitudes and skills-related remarks, which may be as important as 'real' skills. An entrepreneur pays close attention to the external environment in order to explore and realise opportunities and to adapt the business (to the maximum extent possible) to the demands of the market and society. 'Seeing opportunities', 'to assess whether developments have consequences for the company and the entrepreneur as a person' and 'realizing capacity' are therefore important steps to take in entrepreneurship (Verstegen and Lans, 2006). For this reason the skills that interviewees mentioned are categorised in three groups:

- Skills related to the knowledge of the farm and the farmer (Table 24)
- Skills related to the environment (market, society, policy) of the farm (Table 25)
- Skills related to the realisation of plans and strategies (Table 26)

Only the skills most frequently mentioned are reflected in the tables. The sign # shows the number of interviewees who mentioned a specific skill. The skills are accompanied by a quotation in order to explain the results.

**Table 24 Skills related to the knowledge of the farm and the farmer**

<b>Trend</b>	<b>Most important observations</b>
Strategic management (#11)	Quote from an accountant: <i>"...A farmer should analyse each aspect of the business so that previously concealed problems can be revealed as well as potential profit areas. It is important to anticipate early on the trends and developments in your farm business. A strategy identifies strengths and weaknesses: it shows how the farmer can plan to cope within the firm's environment."</i>
Self-knowledge (#9)	Quote from a bank employee: <i>"...The farmer should identify his own strengths and weaknesses so that key success and failure factors can be formulated."</i>
Attitude to feedback (#8)	Quote from an ornamental tree grower: <i>"...Farmers should have an open attitude towards receiving feedback from others (employees, bank, accountant, colleagues, etc.)."</i>

Other skills related to the knowledge of the farm and the farmer that are mentioned are: dealing with risks (#7), SWOT analysis of yourself and your company (#6), trade mentality (#6), broad development (technical and entrepreneurial) (#5), making analysis (#3), inquisitive (#2), financial knowledge (#2), helicopter view (#1), working hard (#1), benchmarking (#1) and education (#1).

**Table 25 Skills related to the environment (market, society, policy) of the farm**

<b>Skill</b>	<b>Most important observations</b>
External orientation in the environment of the farm business (#17)	Quote from a manager of a health care institution: <i>"...Farmers should not isolate themselves but actively be in touch with the outside world."</i>
Open, pro-active attitude (#11)	Quote from the CEO of a vegetable and fruit auctioneers: <i>"...With a pro-active attitude you can adapt appropriately and promptly to changes you identify in your environment."</i> Quote from a scientist: <i>"...Don't look in a defensive way at changes in the environment."</i>
Flexibility, dealing with changing circumstances (#8)	Quote from a pig farmer: <i>"...Because of increasing liberalisation, entrepreneurs realise less profit. Agricultural entrepreneurs have to deal with high fluctuations in prices, incomes, etc. and have to be flexible in all these changes they are facing."</i> Quote from an accountant: <i>"...Entrepreneurs have to find solutions for the changes in the environment and operate a strategy of adaptive entrepreneurship."</i>

Other skills related to the environment (market, society, policy) of the farm that are mentioned are: knowledge of your customer (#6), positive attitude towards changes (#5), recognising opportunities (#5), insight into the chain (#5), imagining what the customer wants and needs (#2), innovative (#2), accounts management (#1), searching for information (#1) and knowledge of legislation (#1).

**Table 26 Skills related to the realisation of plans and strategies**

<b>Skill</b>	<b>Most important observations</b>
Co-operation (# 10)	Quote from a policy maker: <i>"...In cooperating with others you have to communicate in the right way with each other and discuss important decisions with each other. You have to trust your partners, because in cooperation you can not do everything by yourself."</i>
Management and leadership (#8)	Quote from the CEO of a seed potato trading house: <i>"...Knowing your own qualities and the qualities of your employees or external people is important in creating a team of specialists, where you can complement each other."</i>
Social skills and networking (#8)	Quote from an ornamental tree grower: <i>"...Farmers should not isolate themselves but actively be in touch with the outside world. In taking part in a governing board you can influence policy measures."</i> Quote from a vegetable grower: <i>"...Take a look at other farms in your own country, but also in foreign countries, and start a dialogue with them. Why are you doing it in this way, etc? You can learn much from others."</i> Quote from a bank employee: <i>"...Use your contacts in a smart way to realise finance, etc. for your business and to gain relevant information."</i>

Other skills related to the realisation of plans and strategies that are mentioned are: creativity (#7), taking responsibility (#7), audacity (#1) and energetic (#1).

The interviewees agreed that virtually all Dutch farmers have good basic technical farm skills. In a bigger farm with a lot of employees, as in Dutch horticulture, farmers do not have to master the basic skills of production all by themselves. These farmers have the ability to stand back from daily, operational activities and develop more entrepreneurial skills by spending time on tactical and strategic issues. Many interviewees said that specific personal factors are also required for successful farm entrepreneurship, e.g. a certain type of attitude or motivation, being positive or proud to be an entrepreneur.

Entrepreneurial skills are said to be more highly developed in sectors where the farmer operates close to the market and society, as in the horticultural sector, flower and plant cultivation sector and intensive livestock sector. In these sectors the 'selection' of farmers with a high and low level of entrepreneurial skills is already ongoing, so that only the 'real' entrepreneurs survive. Arable and dairy farmers never really had to develop entrepreneurial skills, because they operated with market protection and their products were sold by large cooperative firms. According to the interviewees, in these sectors you'll find proportionally the lowest level of entrepreneurial skills among farmers. Some interviewees mentioned some regional differences in entrepreneurship, due to the regional concentration of some sectors. Some interviewees stated that entrepreneurial farmers are simply more successful. This statement was also confirmed in the national discussion group, when participants mentioned long term financial results as an indicator for the entrepreneurial qualities of farmers.

An entrepreneurial farmer has to be able to determine his/her own personal strengths and weaknesses and the strengths and weaknesses of the company. An open and pro-active attitude is necessary to stay in contact with external trends and developments and to improve knowledge and skills. By analysing each aspect of the business and external environment (market, society and policy), entrepreneurial

farmers explore opportunities and threats and formulate plans about how to anticipate trends and developments. A farmer has to be able to deal with the changing conditions of the market and with price and income fluctuations.

The abilities mentioned in the interviews are, to a large extent, related to personal characteristics and attitudes, such as flexibility, the ability to act and take decisions under uncertain conditions and the ability to look for alternatives. A slight contradiction is shown between, on the one hand, the attitude of adjustment and following the trends, and, on the other hand, a pro-active attitude that does not take the current situation for granted. This could be related to the creativity required to generate new ideas, but not everybody has this characteristic or can develop it. When the entrepreneur considers interesting developments or opportunities in the market, he should have the drive to proceed effectively to action. Through networking, co-operating, an open attitude to receiving feedback and active dialogue with the outside world and other sectors, farmers can improve and adapt the farm business and determine which strategy is appropriate for their person and company.

The participants at the discussion workshop commented that the importance of decision making is underestimated in the interview results, as it is very important for the 'implementation capacity' of entrepreneurs. Dealing with risks also seems to be a crucial skill for good entrepreneurship: a successful entrepreneur not only recognises risks, but also uses risks to make the right choices.

## 5.4 Conclusions and discussion

### 5.4.1 Conclusions

The conclusions of the Dutch research are based on the opinion of twenty-three persons, so it is possible that the conclusions do not entirely reflect all possible views. The two interview questions are first answered (in order of those most frequently mentioned) in catchwords and later on linked together in order to draw conclusions:

1. *Which important trends/developments do you see in the operational environment of farm businesses (market, society) in your country?*

Globalisation of the market - demand for food safety and animal welfare - scale increase - accession of countries to the EU - pressure on rural areas - growing significance of product quality and added value - growing power of buyers - changing food patterns - growing demand for other functions and services - high-level requirements of legislation - agriculture is declining.

2. *What are the most important skills that a farmer needs in order to succeed in the farming business?*

External orientation in the environment of the farm business - strategic management - open, pro-active attitude - cooperation - self-knowledge - attitude to feedback - flexibility, dealing with changing circumstances - management and leadership - social skills and networking.

The trend quoted most frequently by interviewees is that of changing market circumstances brought about by the de-regulating policies of the (EU) government and increasing globalisation. Dutch greenhouse and intensive livestock farmers are less dependent on subsidies than arable and dairy farmers. The impact of the reform of the EU Agricultural Policy is therefore the greatest in the arable

and dairy farming sectors, because these farmers have to switch to producing free market products. Farming without subsidies requires new skills of farmers and ensures that the differences between the sectors are progressively disappearing. In days gone by, professional skills were very important for farmers to continue in the farming business. Nowadays, entrepreneurship skills are becoming more important, such as recognising market opportunities, predicting customer needs and understanding new rules and legislation. A farmer needs the skill of knowledge acquisition and exploitation in order to understand new market requirements and to hold onto his license to produce and to deliver.

The globalisation of markets brings about a reduction in product prices and therefore has a great impact on the income of Dutch farmers. In the Netherlands the cost level of soil, labour, machinery, infrastructure and knowledge is high compared with other (EU) countries, so cost reductions, scale and production increases are necessary in order to bring down the cost price. According to the interviewees, Dutch agriculture should react to the changing circumstances with an added-value strategy involving quality improvement and product diversification. Farmers should further excel in producing cost and knowledge-intensive crops and leave bulk production to other (new) EU countries, because they can produce these products at a lower cost price. An external orientation is needed in order to discover the needs of the customer and to choose the right added-value strategy. Through an active dialogue with subcontractors and customers in the product chain, consultants, traders, bankers, accountants and agricultural magazines, farmers can obtain relevant information about trends, opportunities and threats in the market. Farmers should not isolate themselves but actively be in touch with the world outside the farm gate. Another strategy to generate additional sources of income is providing new functions and services, because the demand for nature and water conservation, the preservation of rural areas, recreation and tourism is growing.

The reform of EU Agricultural Policy is accelerating the selection of good entrepreneurs. Dutch agriculture is also becoming more professionalised because the number of growers with a higher education is increasing. Farmers with a higher level of education are more familiar with entrepreneurial skills. Entrepreneurial skills are also more developed among farmers who run a big company with a lot of employees or who are co-operating with others. Management, leadership and good communication is necessary in these situations. Because the entrepreneur does not have to carry out the basic production process all by himself anymore, he/she has the ability to spend more time on tactical and strategic issues of the farm business. The trend of scale increase can therefore stimulate entrepreneurship.

Every entrepreneur should formulate a strategy for his enterprise for the next decade. The farm strategy recognises the strengths and weaknesses of the farm and the farmer and shows which steps the farmer has to take to realise the objectives. Farmers therefore have to be aware of their own qualities and the qualities of their employees. An open attitude towards receiving feedback and allowing an outsider (employees, banks, accountants and colleagues) to 'hold up a mirror' helps farmers to look critically at their personal competences and at the company and to take the right tactical and strategic decisions.

### 5.4.2 Discussion

To explore the significance of entrepreneurship in Dutch agriculture, the Dutch results were compared with a study about successful agrarian entrepreneurship (van Uffelen et al., 2005). A Dutch farmers' journal asked the Agricultural Economics Research Institute (LEI) to do a study on the success of agrarian entrepreneurship by making a profile of entrepreneurs who are nominated for the 'Agricultural Entrepreneur of the Year' award.

The stories of the nominees reveal that their motivation for choosing a particular strategy was often based on a personal vision ('things need to be done differently'). For example, there may have been problems such as poor price-making, animal diseases and the effect of their operations on the environment. There were also nominees who saw opportunities in market or social trends on the basis of developments within their enterprises. Lastly, the personal motivations of entrepreneurs also played a role, such as no longer wishing to be dependent on cooperation, not wishing to work so hard for an impoverished existence, or wanting to realise a dream. They are driven by enthusiasm and vision, and apply their creativity and tenacity to seek alternative solutions in response to the demand. On the basis of a modicum of self-confidence, they make use of their strengths and compensate for weaknesses through collaboration. By means of well-chosen combinations, through integrated thinking and action, they reach solutions that are often difficult to imitate.

The study of successful agrarian entrepreneurship reveals many similarities with the opinions of interviewees and workshop participants about the skills and personality farmers need to continue in the farming business. For this reason, the picture of the interviewees corresponds with the existing literature. To be able to deal with important trends and developments in the operational environment (market, society) of the farm business and to survive in the current market, farmers have to be 'real entrepreneurs'. The description of a 'real, successful' entrepreneur by the interviewees and participants of the discussion shows many comparisons with the definition formulated in the study: a 'real' entrepreneur is someone who 'knows what he wants,' and has a clear vision of the market, product and production processes. He achieves the objectives he has set for himself by persevering and taking the right decision at the right time. Furthermore, he takes the initiative, is innovative, communicates easily and believes in his own ability. By making investments for the future based on his vision, and by taking a few risks, he manages to create a good return on his investment. He is also someone who knows what the client wants and ensures that he can produce this in a socially acceptable manner. He is also able to deal with legislation and regulations well. Lastly, he takes pleasure in his work within an enterprise that suits him.

Although a picture may emerge that the success of an entrepreneur is the result of the qualities with which he is born, it is clear from the study of successful agrarian entrepreneurship that this picture needs to be modified; any farmer can develop at his own level and thus grow within his entrepreneurship. Courses, training, practical learning methods, practical networks and the sector academies (communities of practice) can assist in this. Some of the interviewees do not agree with this statement. They believe that you cannot become a 'real' entrepreneur through learning, because it has to do with a certain personality that you either have or do not have.

The results of the twenty-three interviews are rather consistent. It is striking that many interviewees identified strategic management (having a clear vision for the company) and an external orientation towards the environment of the farm business through an open, pro-active attitude as being important skills for farmers to survive and succeed in current and future farm business. Of course interviewees did not share always the same opinion. Differing opinions were forthcoming in the following areas:

Some interviewees believed that there is no fair competition on the international market for Dutch farmers, because the Dutch government is always very quick to introduce stricter legislation (e.g. emissions of pesticides and nutrients). Other interviewees believed that farmers should not complain to the government. Farmers have to run their business in a certain environment and should consider that as a fact. Real entrepreneurs, according to them, should have an internal locus of control.

The high demands of the government regarding food safety are exaggerated, according to some interviewees. They state that tracking and tracing products generates a higher cost price, because it is time consuming for the farmer. Other interviewees see certification as an opportunity for farmers to create added value on the products. It therefore needs a pro-active rather than a defensive attitude.

Some interviewees experienced the decreasing support of the government (subsidies) as a negative development, because the number of farmers will decrease. Other interviewees wonder why agriculture should be treated differently from other small businesses. Moreover, they believe that the quality of Dutch agriculture will increase because less competent entrepreneurs will disappear.

It is plausible that the general level of entrepreneurship differs by sector. The level of entrepreneurship would differ by region if this were the case, because specific sectors are more concentrated in certain regions in the Netherlands. For example, most greenhouse horticulture is found in the province of South Holland, near to important logistics hubs. According to some interviewees entrepreneurial skills are best developed in this sector, because entrepreneurs are used to operating close to the market and society. Arable farming is concentrated in regions with fertile land, such as Zeeland, the IJsselmeer polders and Groningen. Some interviewees believe that entrepreneurial skills are generally less developed in this sector, because these entrepreneurs are used to operating with market protection. If it is true that the level of entrepreneurship differs by sector, the strategy to develop entrepreneurial skills has to be tailored to the specific sectors. The de-regulating policy of the (EU) government means that the circumstances of entrepreneurs in the various sectors are becoming more and more similar. This could mean that the general picture that interviewees have outlined of a 'real entrepreneur' is valid for all agrarian entrepreneurs in the Netherlands. However, it is plausible that certain entrepreneurial skills are more important in specific sectors than in others. For example, for a farmer with a tourist camping business it is more important to have social skills than for an arable farmer without staff. This conclusion cannot be stated with certainty, because the research has not focused on comparing entrepreneurship between different sectors.

The Dutch results cannot simply be translated to other countries. The interviewee population is a reflection of the Dutch agricultural sector, which has specific characteristics, such as high costs for land and labour and specific main production sectors (arable and dairy farming). Moreover, the Netherlands is a unique country because of the high population density, a strong dependence on exports, good infrastructure and high knowledge levels. The results of the interviews and discussion

workshop are therefore applicable in particular to the Dutch situation. On the other hand, farmers all over the world have to deal with trends and developments that require specific (entrepreneurial) skills. Therefore, many of the skills recommended by the Dutch interviewees also apply internationally.