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Young Farmers with Future

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Preface from the commissioning organisation

One of my concerns, as minister for agriculture, is to get to know the current needs of young farmers. Young farmers form the future of our agriculture. Throughout Europe the Common Agricultural Policy, its instruments and measures for the period up to 2020 are currently being discussed. The young farmers will be the ones most affected by the resulting future orientation.

With a view to being able to react to the needs of young farmers I pose myself the following questions: how do the young farmers of today view themselves? What opportunities does agriculture offer to young farmers and what challenges are they aware of? What approaches to solutions are they pursuing already or considering for themselves?

I commissioned this survey in order to be able to answer these questions. The results are clear: each young farmer has his or her priorities but there does not exist a uniform perspective of agriculture. Depending on who is asked, totally different aspects come to the forefront. While some would like to be actively involved in the shaping of agricultural policy others see no room for involvement.

Although the methods, means and motives differ from young farmer to young farmer they all follow collective aims: to espouse a form of agriculture which is comprehensive but at the same time which preserves the landscape, to contribute to the protection of the environment and the climate, to ensure that their agricultural produce is of good quality, healthy and not harmful, to welcome their inheritance and to see themselves as the future of agriculture and our rural areas.

These are exactly the areas of focus which the Austrian agricultural policy advocates and has advocated for the last ten years. They continue to form the common denominators for the future developments of agricultural policy.

We would like to thank the young farmers for their participation, the Federal Institute of Agricultural Economics for the implementation and scientific evaluation of the survey as well as the Austrian rural youth organisation for their cooperation during the survey. The results will be of great use for the further development of the Austrian agricultural policy.

DI Niki Berlakovich

Minister for Agriculture and the Environment

Forward

“Young farmers with future” is the title given to the action under the auspices of which the Federal Institute of Agricultural Economics was commissioned by the BMLFUW to carry out a survey. In the course of this online survey young farmers who had already taken over or are due to take over farms in the coming years, were asked about their view of themselves and their image of the future.

“Young agriculture” is facing enormous challenges: the coming generation has to feed more than eight billion people with decreasing resources, is supposed to produce energy crops and biomass for industry as well as also fulfil certain other needs of society. At the same time business has to be conducted in harmony with nature in order that the “young agriculture” maintain its own ecological foundations. Furthermore the development of this “young agriculture” is governed by state interventions and corresponding changes in the political frame conditions.

We all know that we depend on the services of agriculture and that we need a dedicated “young agriculture”. It is, however, not necessary to state here what really would be necessary – the young farmers speak clearly for themselves: it is written in the following pages of this survey. The results are presented in suitable graphic form, processed in text form and backed up with “bare figures.”

The result of this survey clearly shows that the young farmers want not only representation but also wish to be active themselves. 910 young farmers filled out the questionnaire completely.

We are especially grateful to all the young farmers who took the time to fill out the questionnaire as well as to all involved in making this survey a success.

Hubert Pfingstner
Director

1 Introduction

In Austria agricultural family businesses are generally handed down to a successor from within the family. Each year between 1,000 and 1,900 young farmers take over a business.

The scope of activity for young farmers has altered dramatically over the last years and even decades. This leads to future opportunities for rural farming businesses, young farmers have prospective futures and ideas of how they want to deal with their futures.

This survey of young farmers using an online questionnaire aimed to map authentically and comprehensively the tasks, functions and opportunities already perceived by young farmers as well as their roles in future challenges. It was not the intention to derive a political instrument from it, but rather, in the first instance, to ascertain impartially what is going on in the “minds of the young farmers participating.” Three main blocks of questions were at the forefront of this survey:

- How do you perceive yourself as a young farmer?
- What prospects do you have as a young farmer?
- What is your opinion on the challenges outlined for your activities as a young farmer?

These three blocks of questions were rounded off with a thematic focus on taking over a business and one on statistical data.

The self-perception of young farmers in Austria is subjective and is individually marked by the know-how, experiences, attitudes and ideas of the young farmers of the agriculture of today and tomorrow.

In this way the survey does not pretend to capture and describe the self-portrait of the young farmers in Austria. But rather a lot more can be concluded on the current state of awareness from the spontaneous answers given on the topic of “young farmers with future”. It is clear that these states of awareness represent a snapshot. Nevertheless they give indications of the ideas that the farmers have and what has to be done to realise the latter.

2 Description of methods employed

Method of survey

In June/July of 2011 young farmers were questioned on their perception of the future. The population surveyed consisted of young farmers who received a set-up grant in the period between 2007 and 2010 (young farmers with answers based on actual experiences) or will be taking over a farm in the coming years (young farmers with answers based on potential experience). A confidence interval of 10% and a confidence level of 95% were calculated when selecting the size of the sample.

According to the data from the INVEKOS (IACS) database 5,781 young farmers received a start-up grant between 2007 and 2010. A total of 2,602 businesses were selected from this list and the Federal Institute of Agricultural Economics (AWI) sent the email request to fill out an online questionnaire of 57 questions (divided into five blocks). Reminders were sent out – also via email – at the end of June, beginning of July; the closing date for submissions was the 11th July 2011.

From the data of the Rural Youth Organisation a total of 4,500 members, who were in line to take over their parents' farms by 2020 or later, were selected and, at the behest of the Minister, sent an email by the regional offices of the Rural Youth Association in the provinces asking them to fill out an online questionnaire consisting of 55 questions (in 5 blocks). Reminders were sent at the beginning of July – also via email; the closing date for submissions was 15th July 2011.

Participants were able to ask questions by telephone or via email to a hotline set up especially for this purpose.

The questionnaires were filled out during the period between 17th June and 15th July 2011.

Response rate and the sample

The questionnaire was filled out by 910 young farmers in such a way that it could be used for a detailed evaluation after being tested for quality (consistency check). The response rate thereby came to 14%.

Of the young farmers who had already taken over, 634 made the effort to fill out the questionnaire. This corresponds to a response rate of 29% (net response).

For the young farmers who still have to take over their farms the response rate included in the evaluation came to 7% (net response). From this it is possible to start from the hypothesis that those who answered are determined to take over an agricultural business and already know when they will take over (86% of those questioned will take over by 2020, the rest later) and that they are interested in the topic “young farmers with future”; those who did not answer are principally undecided.

Table 1 Response rate and sampling

	Young farmers		
	With a takeover		Sample
	between 2007 and 2010	In the coming years	
Population	5,781		
Gross sample	2,602	4,500	7,102
Neutral drop-outs (wrong email addresses)	400	350	750
Net sample	2,202	4,150	6,325
Gross response rate	688	355	1,043
Discards*	54	79	133
Questionnaires used	Absolute figure	634	276
	as % of the net sample	29	7
			910

Annotation: * empty or incomplete questionnaires

The young farmers answering are more or less representative of the structure of the population surveyed. It should be noted that in the case of the young farmers who have already taken over their farms there is a downward trend from south – west and from mountain agriculture to non-mountain agriculture. Among the young farmers who still have to take over there is a strong predominance of non-mountain agriculture and crop farming. The structural data on Austrian agriculture has been included for the purposes of comparison (c.f. table 2).

Table 2 The structure of Austrian agriculture, the survey population and the response rate

		Austrian Agriculture	Young farmers surveyed according to INVEKOS	Take over	
				2007 to 2010	In the coming years
				effective	effective
in %					
NUTS Level 1	Eastern Austria (AT1)	30	29	30	34
	Southern Austria (AT2)	30	27	20	27
	Western Austria (AT3)	40	44	50	39
Location of farm	Mountain farmers	54	56	44	36
	Non-mountain farmers	46	44	56	64
Type fo farm	Livestock*		27	31	21
	Crops**		17	18	44
	Combination***		56	51	35
Sex of the head of the farm	male	62	65	63	74
	female	38	35	37	26
Province	Burgenland	5	2	2	7
	Corinthia	9	7	4	7
	Lower Austria	25	27	30	25
	Upper Austria	21	27	32	20
	Salzburg	6	9	9	5
	Styria	21	20	16	19
	Tirol	10	7	6	6
	Vorarlberg	3	1	1	7
	Vienna	0.2	0.1	0.2	0.3
Farm size according to standard class of profit margin	unclassified		2	1	
	< 12,000 Euro		15	15	
	12,000-35,000 Euro		41	41	
	35,000-150,000 Euro		40	41	
	> 150,000 Euro		2	2	
Type fo farming	Conventional	83	77	71	67
	Organic	17	23	29	33
Age	under 25	1	2	2	61
	25 bis 35	9	41	45	33
	über 35	86	57	52	5
Status	Single			19	47
	Life partnership			23	47
	Married			58	6
Farm managed together with partner/spouse				68	73

Source: Green Paper 2011, INVEKOS-Data, Agricultural Structure Census 2007, findings within the framework of the survey „Young agriculture with a future“

Annotation: *Farms were classified as livestock farms if cattle and/or pigs and/or poultry and/or crop production purely for the sake of feeding livestock were declared, **as arable farms if tillage and/or vegetables and/or fruit and/or wine and/or forest were indicated, and ***as mixed farms if a multiple of the above mentioned livestock and arable categories was indicated.

Processing of the data

In a **statistical weighting** according to NUTS level 1, the location of the farm, form of agriculture as well as the sex of the head of the farm the sample was adapted to the structures known from the INVEKOS data on the survey population for the above statistics.

The **frequencies** are portrayed as percentages (%). The **mean values** are given as arithmetic means. This is based on the answers given on a scale of 1 to 4 whereby a low value indicates that an aspect is very pertinent or has a high level of influence or that it corresponds to an interest or to a strength. In their graphic form the questions are arranged using the mean values of the answers.

Typification

Factor and cluster analyses were used to identify and group similar types of persons answering.

A **factor analysis** gives an ordered structure to a very large set of variables. "Theoretical variables" are construed based on the correlations between the variables measured. The theoretical variable is then marked as a factor. A factor thereby represents a theoretical value which forms the basis for all mutually highly correlated variables (Bortz, 1993). In this case the categorical principal component analysis was applied. This "data consolidation" procedure identified eight factors which were independent of each other which explain 78% of the total deviation which is a relatively high value. These eight factors form the basis for the subsequent cluster analysis.

The **cluster analysis** groups the young farmers surveyed in such a way that the differences between the answers given within a group or cluster are as small as possible but the differences between clusters are as large as possible (Bortz, 1993). In this case the methods of WARD were selected as differentiation criteria since they reflect the actual structure of the data set well.

3 Description of the young farmers

Location of the farm

Around 44% of Austria's young farmers operate their farms in western Austria, spread out with 27% in Upper Austria, 9% in Salzburg, 7% in Tyrol and 1% in Vorarlberg. Next comes Eastern Austria with 29% of the young farmers, 27% operating in Lower Austria and 2% in Burgenland (as well as 0.1% in Vienna). The remaining 27% of young farmers are situated in southern Austria – 20% in Styria and 7% in Carinthia (c.f. table 2).

56% of the young farmers are mountain farmers. There were more non-mountain farmers than mountain farmers among the people questioned who were still to take over their farms. For every mountain farm there were two non-mountain farms (c.f. table 2).

Form of agriculture, production type and intensity of cultivation

56% of the young farmers husband livestock on their farms as well as cultivate crops¹, 27% husband livestock², 17% farm crops³. While the distribution in the case of the young farmers who have already taken over is similar to that of the population surveyed, the distribution of the young farmers questioned who were still to take over their farms tended in favour of the cultivation of crops (44% of the young farmers asked) (c.f. table 2).

Scarcely a quarter of the young farmers farm organically. In relation to NUTS level 1, 35% of those questioned farm organically in western Austria, 28% in southern Austria and 26% in Eastern Austria.

In the future just under two thirds of the young farmers will run their farms with the same intensity but 22% will farm more intensively and 11% more extensively. The young farmers with conventionally run farms will increase the intensity of their cultivation or cultivate more intensively (just under a quarter) more than the organically operated farms (just under a fifth). Here it should be noted that of the young farmers who have already taken over and farm conventionally 27% intend to farm more intensively and of those farming organically 17% will intensify. On the other hand the majority of the young farmers still to take over (some 70%) will continue to farm with the same intensity whereby 17% of the conventionally run farms will be operated more intensively and 9% more extensively. In the case of the organically run farms 25% are aiming for intensification and 8% for becoming more extensive. (c.f. table 3).

¹ Farms were classified as mixed or combination farms if a multiple of the above mentioned livestock and arable categories was indicated.

² Farms were classified as livestock farms if cattle and/or pigs and/or poultry and/or crops for animal feed were declared.

³ Farms were classified as arable farms if tillage and/or vegetables and/or fruit and/or wine and/or forest were indicated.

Table 3 Contingency table of the production type and intensity of cultivation

Totality of young farmers

	More extensive	Same intensity	More intensive	Total
conventional	10	66	24	100
organic	13	68	19	100
Total	11	66	22	100
conventional	63	69	75	70
organic	37	31	25	30
Total	100	100	100	100

Young farmers who took over between 2007 and 2010

	More extensive	Same intensity	More intensive	Total
conventional	10	62	27	100
organic	16	66	17	100
Total	12	64	24	100
conventional	62	70	79	69
organic	39	30	21	29
Total	100	100	100	100

Young farmers who are due to take over in the next years

	More extensive	Same intensity	More intensive	Total
conventional	9	74	17	100
organic	8	71	21	100
Total	9	73	18	100
conventional	70	67	62	67
organic	30	33	38	33
Total	100	100	100	100

Age, sex and status of the heads of farms

Of the young farmers 2% are under 25 years old, 40% are between 25 and 35 and 57% are over 35. While the proportion of those over 35 is 5% among those young farmers still to take over, it amounts to 52% among those who have already taken over. By contrast for the age bracket under 25 the young farmers who have already taken over make up 2% and those who are still to take over 61% (c.f. table 2).

Just under two thirds (65%) of the young farmers are responsible for the management of their farms⁴. Among the young farmers who have already taken over the proportion of men comes to 63% and among those who are still to take over to 73% (c.f. table 2).

More than half (58%) of the young farmers surveyed who have already taken over are married and 23% cohabit. Of the 81% of those respondents who live in a long-term

⁴ Addendum: In Austria 38% of the farms are run by women. Over the federal provinces the distribution of females in charge of farms is very varied, namely: Upper Austria 46%, Salzburg 44%, Styria and Burgenland 42%, Lower Austria 41%, Carinthia 29%, Vienna 29%, Vorarlberg 19% and Tyrol 16% (BMLFUW, 2011, pg. 74).

partnership 68% manage their farms together with their respective partners. Of the young farmers who are still to take over 6% of those surveyed are married and 47% cohabit. 73% of the respondents intend to manage the business together with their respective partners in the future (c.f. table 2).

Two thirds of those surveyed argue in favour of co-management whereby half of them come from western Austria, 26% from southern Austria and 24% from eastern Austria (c.f. table 4).

Table 4 Contingency table on co-management of farms and NUTS regions (eastern, southern and western Austria) – totality of young farmers

	Eastern Austria	Southern Austria	Western Austria	Total
Yes	16	17	33	66
No	13	8	10	31
Unclassified	0	1	1	3
Total	29	27	44	100
Yes	24	26	50	100
No	41	26	32	100
Unclassified	0	55	45	100
Total	29	27	44	100
Yes	56	64	75	66
No	44	31	23	31
Unclassified	0	5	3	3
Total	100	100	100	100

Education

The farmers of the future are educated; they have a good general education as well as in the field of agriculture whereby the young farmers, who are still to take over, focus more on a general or a technical qualification of secondary education (technical Matura).

In the sector of general education 40% of the young farmers who have already taken over gave evidence of a skilled apprenticeship, followed by 21% with Matura (A-levels), 18% a secondary college or master craftsman certificate and 10% are academics. The education in the field of agriculture is composed of the following: 50% have a basic education, 25% are master craftsmen, 16% have a technical Matura, 4% an academic qualification and 2% purely practical experience (c.f. table 5).

Table 5 Level of education of the young farmers who took over between 2007 and 2010

General education	absolute	in %
Compulsory school	49	8
Apprenticeship	257	40
Secondary college & master craftsman	114	18
Matura (A-levels)	131	21
Academic qualification	62	10
Unclassified	19	3
Education in agriculture & forestry	absolute	in %
Exclusively practical experience	14	2
Basic education	317	50
Master craftsman	159	25
Technical Matura (A-levels)	99	16
Academic qualification	24	4
Unclassified	19	3

61% of the young farmers who are still to take over their farms are under 25 years of age. One can assume that a lot of them have not yet completed their education. It is, however, worth noting that currently the highest level of education is the general Matura which has been completed by 46% of the young farmers, followed by 25% with an apprenticeship, 13% with secondary college or master craftsman certificate and 6% who can give evidence of an academic qualification (c.f. table 6).

Table 6 Level of education of young farmers who are due to take over farms in the coming years

General education	absolute	in %
Compulsory school	20	7
Apprenticeship	70	26
Secondary college & master craftsman	37	13
Matura (A-levels)	125	46
Academic qualification	17	6
Unclassified	4	2
Education in agriculture & forestry	absolute	in %
Exclusively practical experience	78	28
Basic education	93	34
Master craftsman	6	2
Technical Matura (A-levels)	87	32
Academic qualification	6	2
Unclassified	4	2

4 Self perception of the young farmers

The findings from the individual blocks of questions – interest, prospects and challenges for the young farmers as well as taking over – are introduced in the following chapters. The answers from the young farmers indicate a trend.

Interests

The young farmers in Austria display a willingness to go into farming. For them agriculture is their livelihood and their home. The vast majority of those questioned accepted or will accept their inheritance with pleasure and enthusiasm. The young farmers (86%) see themselves as preserving and continuing the tradition of agriculture and classify themselves as innovative and open for new ideas (85%).

Initial and further education is a foundation stone for the young generation of farmers. For more than half of the young farmers (64%) an education in agriculture is the motivation for taking over an agricultural business. It is of note that the better part of those questioned (91%) admits that a qualification in agricultural education and an entrepreneurial further education increase the chances of running the business successfully.

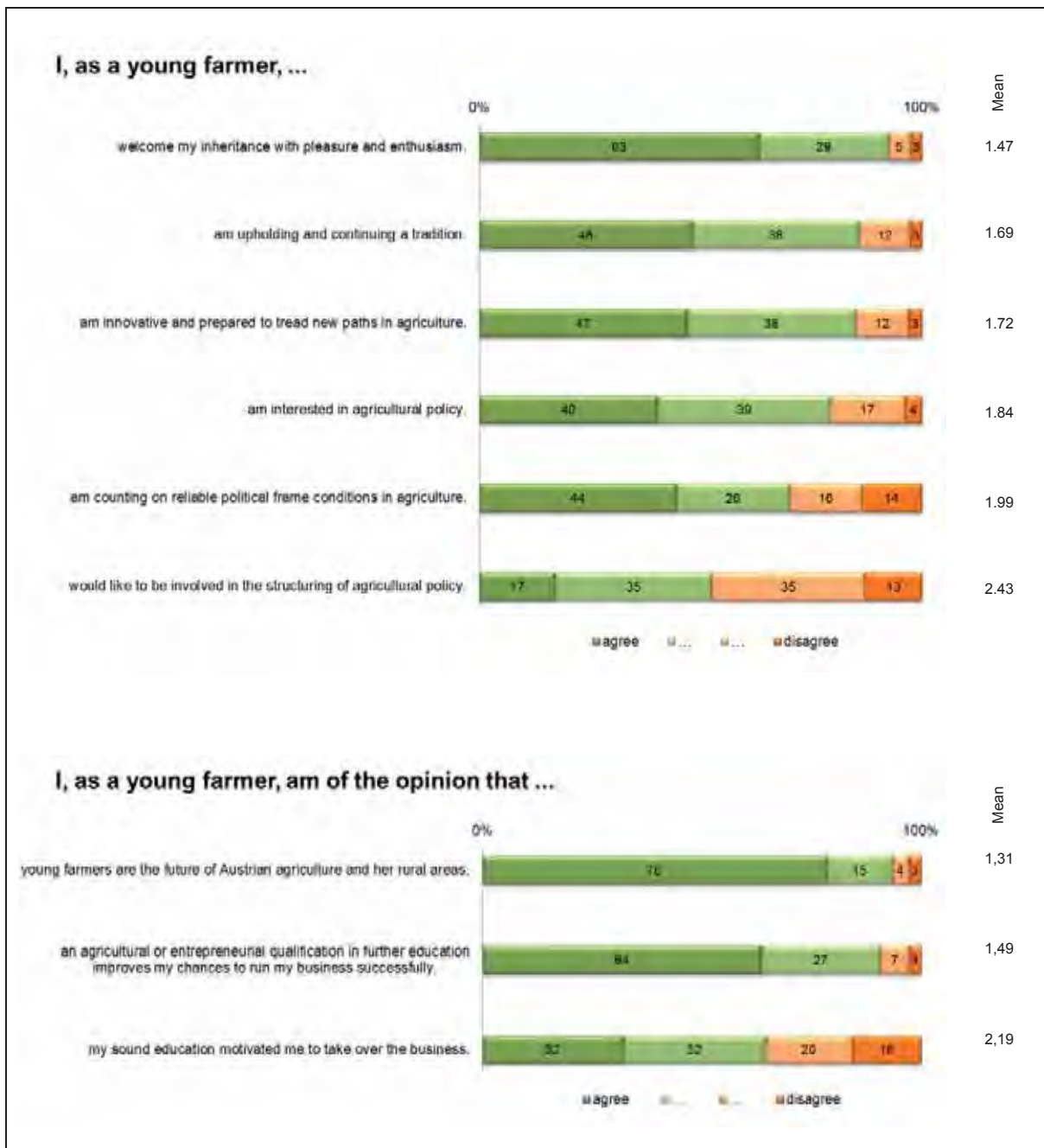
As young and politically active farmers they are concerned with the topics of agricultural policy (79%); a good half of them (52%) would like to be actively involved in the making of agricultural policy.

Above all the young farmers are asking for insights with regard to the frame conditions; the majority of them (70%) are counting on frame conditions which are reliable. Their concerns are that the time span between reforms is continually getting shorter and that the amount of grant funds could be cut. From the point of view of the young farmers one has to guarantee stable and long-term frame conditions for the reliability of investment planning. The young farmers are of the opinion that the frame conditions should be established at least two years before the next funding period.

The young farmers cannot imagine Austria without its agriculture. They (93%) see themselves as the driving force for the future of Austrian agriculture and its rural regions. Moreover they point out the consequences for society (e.g. for nature and our living environment) if there was no longer any agriculture.

Figure 1 below gives the level of interest and commitment young farmers show towards agriculture.

Figure 1 Self perception – interest in agriculture



Sub group 1: Young farmers with set-up grant – take over between 2007 and 2010, N = 634

Sub group 2: Young farmers who are to take over by 2010 or later, N = 276

1 = agree ... 2 ... 3 ... 4 = disagree

The prospects

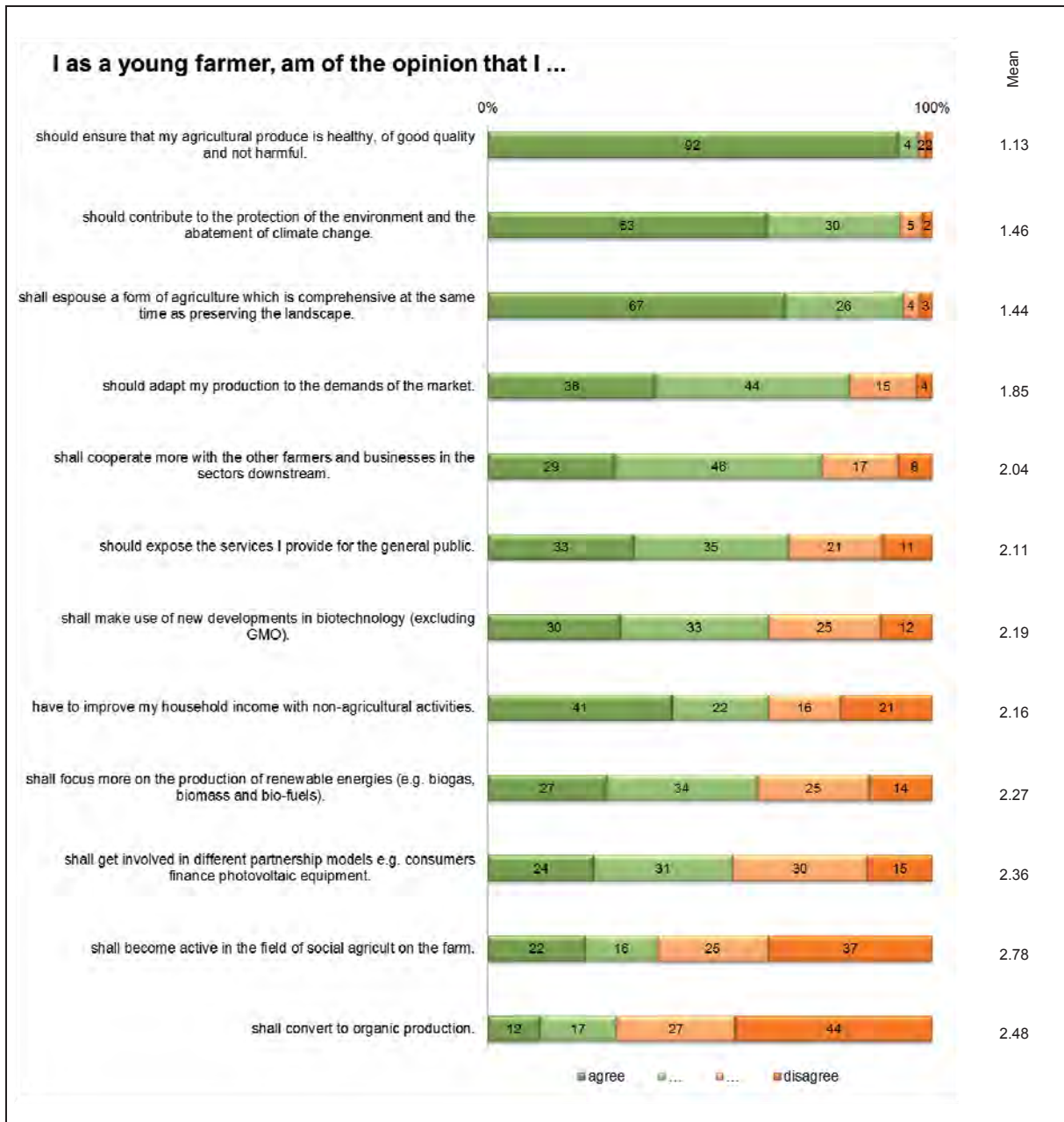
The young farmers consider (regional) foodstuffs as a valuable commodity. The vast majority focuses on the quality, health and harmlessness of their products. Going along with this is the young farmers' willingness to espouse an agriculture that is comprehensive and the desire to make a contribution to the protection of the environment and the abatement of climate change (93%). In this context a good two thirds of the young farmers agree that their activities should be transparent to the general public for the purpose of making the latter aware of them. The young farmers add that the need for action to make their activities public lies with policy makers and that society must be required to contribute to a responsible treatment of nature and the environment. The approach suggested entails the examination, recognition and increased awareness of the impact of one's own actions. This should form the foundations for the development of the new approaches and responsibilities for agriculture – as a service to society.

Other prospects for the young farmers arise from:

- The orientation of production on the market (82%) whereby allusion was made to path dependence in production and obligations in the case of perennial cultures;
- New instances of cooperation with the downstream sector (75%);
- The use of new biotechnologies without genetically modified organisms (GMO) (63%);
- The improvement of the household income with non-agricultural activities (63%); but it should be both possible to run a farm on a fulltime basis and the conditions for farming as a sideline should be improved;
- The production of renewable energy (around 61%) – but the focus should lie on keeping the space for the production of foodstuffs. Here the necessity for full cost accounting was mentioned for all energy production;
- New partnership models, e.g. consumers finance a photovoltaic installation;
- Niche markets such as social agriculture (38%) and organic farming (29%).

Figure 2 below shows how the young farmers assess their prospects in detail.

Figure 2 Portrait of prospects



Sub group 1: Young farmers with set-up grant – take over between 2007 and 2010, N = 634, for the question „change to organic production“ N = 454 (only currently conventional farms)

Sub group 2: Young farmers who are to take over by 2010 or later, N= 276

1 = agree ... 2 ... 3 ... 4 = disagree

Challenges

The challenges were divided into two parts: (i) challenges which motivate and (ii) challenges which make the activities of young farmers harder or even end them.

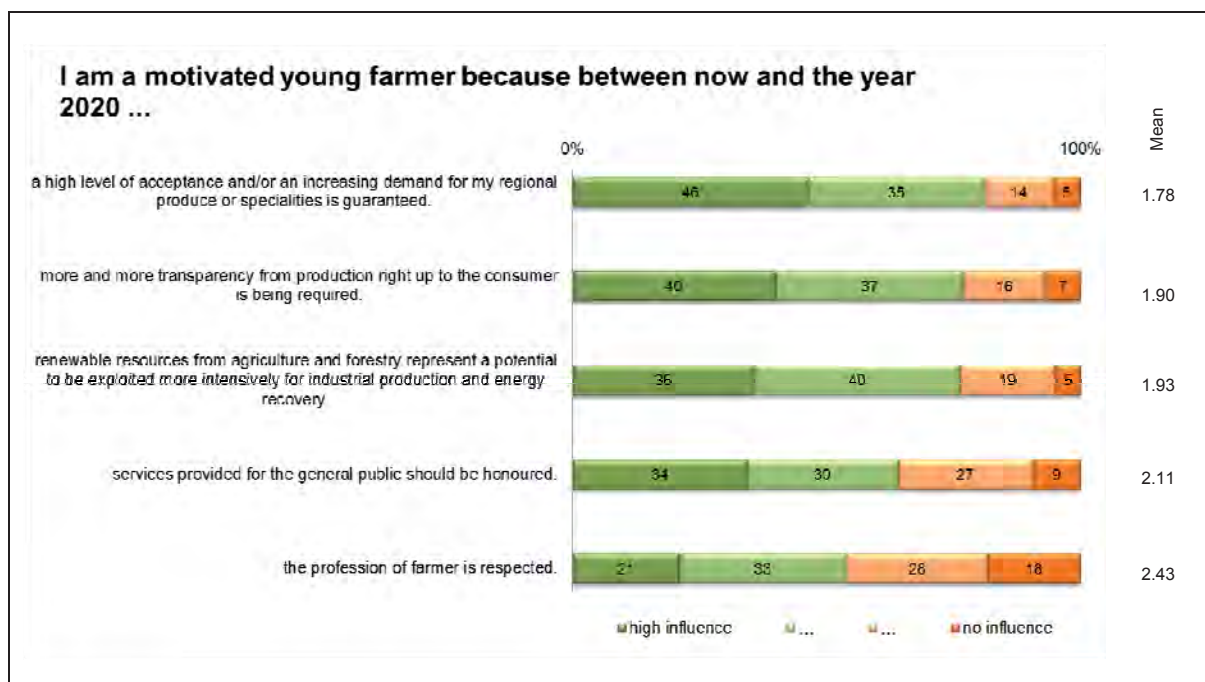
The motivating challenges

The majority of the young farmers (81%) is motivated since there is a high level of acceptance and an increasing demand for their produce which is farmed regionally. The young farmers mention that the perceived value of regional, healthy produce that is farmed in a manner appropriate to each species will increase. They are positive towards the idea of transparency of the system of production right through to the consumer (77%) as long as this is not coupled with excessive requirements for documentation and a load of inspections. For a lot of young farmers (76%) renewable resources for industrial production and the generation of energy also present a potential that should be exploited more intensively, whereby one should act with foresight in order to avoid possible conflicts in the use of space (plate, trough and tank). Furthermore for more than half of the young farmers (64%) there should be remuneration for their services to the general public.

The self-confidence of the young farmers is high; the perception of the profession of farmer in society has very little influence on the motivation of young farmers (54%).

The extent to which challenges motivate young farmers is portrayed in figure 3.

Figure 3 Challenges portrait – motivation



Sub group 1: Young farmers with set-up grant – take over between 2007 and 2010, N = 634

Sub group 2: Young farmers who are to take over by 2010 or later, N= 276

1 = high influence ... 2 ... 3 ... 4 = low influence

The challenges which make activities harder or even end them

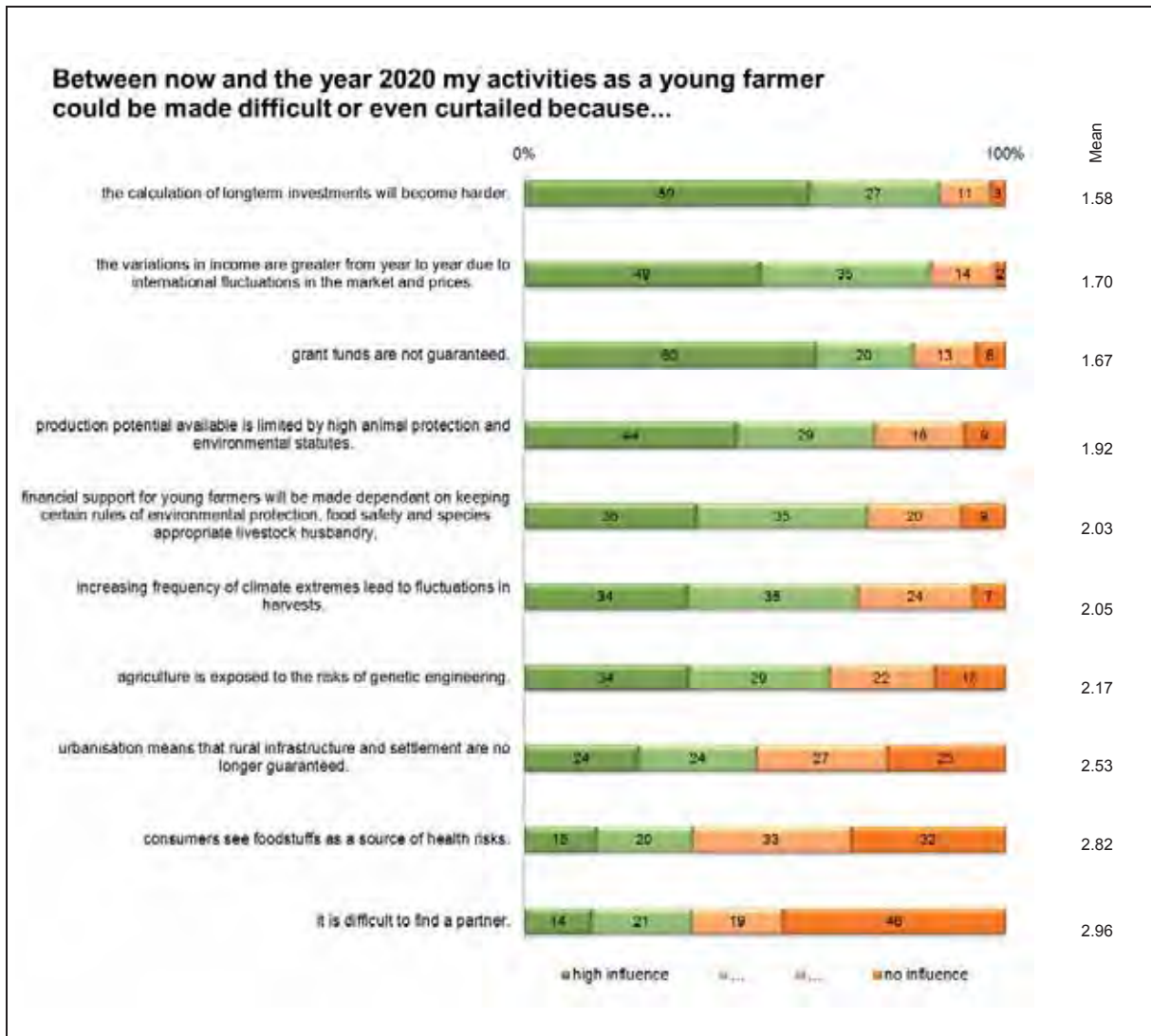
The agricultural activities of the young farmers are made more difficult or even brought to an end by:

- The *difficulty of calculating long-term investments* (86%). They argue for an appropriate investment programme in order to ensure an ease of planning.
- The *increasing levels of variation in income due to fluctuations in market and prices* (84%). This will become a problem for young farmers if the funding grants are also cut back as heavily as has been announced.
- The *fact that funding grants are not guaranteed* (79%). A lot of young farmers have scheduled their investments so that the grant monies are used to pay off their loans. The support from grant funds is important for young farmers but they do not want to be dependant on them. It is purely about compensation for their services (via product prices or public monies).
- The *limitation of the available production potential through heavy animal protection and environmental statutes* (73%). The young farmers point out that the legislative requirements desperately need revision in order to deal with inconsistencies, e.g. farming legislation for nature conservation so that its influence on market competitiveness does not become stronger or stricter. This also contains the requirements for documentation.

- The fact that *financial support depends on keeping certain rules regarding environmental protection, food security and species-appropriate livestock husbandry* (71%).
- *Fluctuations in harvest yield* due to more frequent climate extremes (69%).
- The *exposure of agriculture to the risks of genetic engineering* (63%). On the other hand Austria is seen as a delicatessen which has earned itself a unique selling position in the avoidance of genetic engineering. This position is to be defended whereby the young farmers also address the viability and the possibility of being able to cultivate GMO on a reasonable scale.
- The *emigration from rural areas (urbanisation) and its influence on settlements and infrastructure* (48%). On the other hand a lot of people want to move back out to the country but there are too few jobs or none at all there.
- The opinion that consumers see foodstuffs as a source of health risks (35%). The young farmers indicate that consumers have a say in things with their daily purchase decisions and only buy that which is cheap.
- The *difficulty of finding a partner* (35%). The young farmers indicate that this is not connected to agriculture but that the job of farmer is often seen in a very bad light in the issue of partnership.

The extent to which the challenges make the activities more difficult or even bring them to an end is shown in figure 4.

Figure 4 Challenges portrait – activities



Sub group 1: Young farmers with set-up grant – take over between 2007 and 2010, N = 634

Sub group 2: Young farmers who are to take over by 2010 or later, N= 276

1 = high influence ... 2 ... 3 ... 4 = low influence

The take over

In the period between 2007 and 2011 around 1,406 young farmers per annum took over their businesses, 92% of them would do it again.

In 90% of the cases the activities of the chambers of agriculture, particularly the regional farmers' chambers, followed by those of the technical colleges, the LFI (Rural Further Education Institute), HBLA (federal vocational training college) and the rural youth organisation were helpful during the take over. The assistance during the take over mentioned in the case of the technical colleges and the HBLAs was the fact that they had provided the basic knowledge, in the case of the LFI it was the courses and the rural youth organisation had given support with its brochures.

In general the young farmers agreed that there is enough support available. Nevertheless they pointed out that this has to be claimed, i.e. there is a need to ask.

The young farmers make the following suggestions and proposals for action:

The young farmers would like more information and advice on national insurance and life annuity insurance as well as on legal and fiscal issues. Changes in these areas should not only be published in newspapers but occasionally sent to them directly since often relevant and important information in newspapers is overlooked in periods where there is a lot of work.

The young farmers praise the business development plan. It provides them with an opportunity to really come to grips with the business side of things as well as with the social aspects. The young farmers are of the opinion that the insights gleaned from the business development plan are crucial for success. On the other hand they classify the business development plan as extremely voluminous. In this respect they would welcome more supporting documents or a training version for the layman for practice. On the subject of the relevance of the plan, the young farmers add that the business development plan is used to appraise the stability of the farm before and after scheduled investments. In the eyes of the young farmers the business development plan does not make the viability of the investments or the new branch of business transparent enough.

To bring the business into line with one's own ideas and abilities as quickly as possible requires the precise analysis of one's personal inclinations and abilities. The young entrepreneurs and farmers have to be shown as many potential ways as possible in which one can structure a farm according to one's own interests and abilities. In the eyes of the young farmers the advice given tends too much towards milk production and pig husbandry. These are markets where there is a surplus in production and the prices are under pressure.

A young farmer investing in this direction can no longer get out of it. The young farmers know a lot of people who have already bitterly regretted making this step.

The young farmers recommend dividing up the take over into phases: 1) preparation for take over, 2) transfer and subsequent 3) realisation of one's own ideas. The young farmers consider the advice during the take over as sufficient, however they lack counselling in the preparation and the final phase or in realising their own ideas (phases 1 and 3).

In the eyes of the young farmers the foundations should already be laid one to three years before the actual take over to pave the way for a reasonable settlement which both parties (the person handing over and the person taking on the farm) can agree upon. All those involved should be included. This requires open discussions on the subject of meeting the expectations of each generation in order to promote mutual understanding and to ensure that all parties get up the courage to confess their individual concerns, wishes, desires and needs. Critical issues such as retirement shock, family stumbling blocks, obligations to the heirs, living areas as well as any retirement lodge should be clarified up front to the satisfaction of both parties. One starting point would be if both the heir and the retiring farmer gave it individual thought first and then sought advice later in a counselling session on the future of the farm. The young farmers would welcome the promotion of such processes.

The take over contract should be looked at very carefully. The young farmers indicate that the contracts contain points which today are no longer acceptable for some of those taking over. The contracts provided by notaries as take over contracts are seen this way and an improvement for those taking over is called for.

The young farmers desire a set of guidelines. These should give step-by-step instructions on what to do when so that with the aid of a template for a take over contract they can instigate the take over themselves without the costs for a notary.

Some young farmers also mention the necessity for further education courses for those coming from a different professional background.

The young farmers suggest that the funding for young entrepreneurs be graded. If a young farmer is branching out into new areas and has developed an appropriate business plan this should result in a higher grant (one time payment) and, via tax relief in the initial years, benefit the consolidation of the new business.

5 Typical groups of young farmers

The factor analysis of the individual profiles of young farmers and subsequent cluster analysis led to three groups of young farmer which can be interpreted relatively easily as to content.

For the sake of simplicity the individual groups of young farmers have been given descriptive titles: **young market-orientated reformers**, **young progressive generalists** and the **young staunch traditionalists**. This differentiation should not be interpreted literally since individual young farmers can be quite close to other groups.

The homogeneity of the individual profiles was rechecked at the level of each individual group of young farmers. This confirmed that all three groups displayed a high uniformity of young farmer profiles.

The proportions in the representative sample allow conclusions on the distribution of the individual groups among the young farmers. The young market-based reformers hold 20% of the young farmers questioned. The percentage of young progressive traditionalists comes to 48% and the young staunchly traditional farmers have 32%.

Portraits of the groups of young farmers

The grouping into three clusters gave the most transparent and discernable portrait. The individual characteristics are portrayed in tables 7 and 8 with the aid of a descriptive analysis of the eight development factors as well as the statistics.

Table 7 Descriptive analysis of the development factors of the groups (young market-based reformers, young progressive generalists and young staunch traditionalists)

	Young market-based reformers	Young progressive generalists	Young staunch traditionalists
	in %		
Development factor 1			
New and innovative ways	92	98	58
Active involvement in shaping agricultural policy	65	68	20
Reliable agricultural political framework	49	89	55
Development factor 2			
Agricultural education	75	85	26
Further education	96	98	77
Development factor 3			
Production orientated to market demand	97	79	66
Conversion to organic farming	27	39	15
Household income – non-agricultural activities	45	67	75
Development factor 4			
Renewable energy production	60	75	41
Use of new biotechnologies	83	73	34
Cooperation with farmers and up and downstream sectors	81	60	32
Exploitation of new cooperation models	79	62	33
Development factor 5			
Increased demand for regional products	58	96	75
Transparency from production to the consumer	95	83	57
Development factor 6			
Image of the professional group farmers	53	76	21
Difficulty of finding a partner	52	35	27
Development factor 7			
Difficulty of calculating long-term investments	91	95	68
Funding grants not guaranteed	80	91	61
Financial support depending on rules	90	55	77
Limitation of production potential by legal requirements	93	53	88
Development factor 8			
Fluctuations in income	96	90	55
Fluctuations in yield	84	83	36
Prone to risks of genetic engineering	71	24	29
Urbanisation (infrastructure, settlements)	76	27	59

Table 8 Descriptive analysis of the statistical characteristics of the groups (young market-based reformers, young progressive generalists and young staunch traditionalists)

	Young market-orientated reformers	Young progressive generalists	Young staunch traditionalists
	in %		
Sex of the head of the farm			
male	74	66	58
female	26	34	42
Age			
under 25	2	3	1
25 to 35	43	45	34
over 35	56	52	65
NUTS level 1			
Eastern Austria (AT1)	34	29	26
Southern Austria (AT2)	29	27	25
Western Austria (AT3)	37	44	49
Location of the farm			
Mountain farm	45	62	54
Non-mountain farm	55	38	46
Form of agriculture			
Livestock	25	26	30
Crop	15	15	22
Combination	60	59	48
Production type			
Conventional	80	70	86
Organic	20	30	14
Intensity of production			
More extensive	5	11	18
Constant	30	61	82
More intensive	65	28	0
Time of take over			
2007 to 2010	74	71	66
In the coming years	26	29	34
Status			
Single	15	21	25
Cohabitation	25	39	32
Married	60	40	43
General education			
Compulsory schooling	7	5	13
Apprenticeship	41	40	27
Secondary college & master tradesman	21	19	15
Matura (A-levels)	26	30	31
Academic title	5	6	14
Education in agriculture and forestry			
Exclusively practical experience	6	9	17
Basic education	39	46	47
Master	26	18	18
Technical matura	23	23	16
Academic title	6	4	2

The individual groups are described by portraits as summarised in overviews 1-3

Portrait overview 1 Portrait of the “young market-orientated reformers”

Short description	
<p>„Young market-orientated reformers” favour a constant orientation of agriculture to the economic frame conditions and standards, i.e. they align themselves with the market. They stand for a maximum possible use of the potential available for cooperation and technology. They are greatly influenced in their activities by the requirements of environmental and animal protection as well as the expected fluctuations in income. They are very interested in the topics and discussions surrounding agricultural policy and wish to be actively involved in its development. They do not however reckon with reliable frame conditions.</p>	
Profile	
<p>The deciding success factors in this group</p> <ol style="list-style-type: none"> 1. treading new and innovative paths 2. further education 3. orientation of production according to market demand 4. use of new biotechnologies, cooperation and partnership models 5. transparency in the value chain 6. the difficulty of finding a partner 7. limitations on production potential from legal requirements 8. fluctuations in income 	<p>The most important aspects in each of the three blocks of questions</p> <ul style="list-style-type: none"> • further education • market based production • transparency in the value chain
Statistics	
<p>The management of the farm in this group is predominantly male. On the whole the farms are non-mountain farms which are farmed conventionally and just over two-thirds of them will be farmed more intensively. Partnership, in particular to be married, is very prevalent. The academic education is very good, i.e. this group displays the highest proportion of academics in education in agriculture and forestry.</p>	
Proportion: 20%	

Portrait overview 2 Portrait of the “young progressive generalists”

Short description	
<p>„Young progressive generalists“ align themselves consistently with the increasing demand for their regional produce. The changing frame conditions are integrated as much as possible into their farm management and opportunities are exploited (e.g. renewable energies). They lay store by what people think of them. It is becoming increasingly difficult for them to make long-term investments and the expected fluctuations in income are already a serious cause for concern.</p>	
Profile	
<p>The deciding success factors in this group</p> <ol style="list-style-type: none"> 1. treading new and innovative paths 2. further education 3. orientation of production according to market demand 4. renewable energy production 5. increasing demand for regional produce 6. image of the professional group farmers 7. difficulty in the calculating long term investments 8. fluctuations in income 	<p>The most important aspects in each of the three blocks of questions</p> <ul style="list-style-type: none"> • further education • renewable energies • increasing demand for regional produce
Statistics	
<p>This group registers the most farms with organic production. The proportion of younger farmers roughly corresponds to that of the population. Mountain farms are very strongly represented.</p>	
Proportion: 48%	

Portrait overview 3 Portrait of the “young staunch traditionalists”

Short description	
<p>The “young staunch traditionalists” stick to their roots by continuing the farming tradition and are very convinced of themselves. An education in agriculture is not the motivation to take over a farm. They focus on a good general education and continuous further education and do not rely on contemporary frame conditions given. They do not see much room for active involvement. Cooperation is important to them as well as the regional sale of their produce. The fact that financial support is being made dependant on sticking to rules (environmental protection, food security and farming in a manner appropriate to each species) and that rural infrastructure and settlements are suffering from urbanisation cause them problems.</p>	
Profile	
<p>The deciding success factors in this group</p> <ol style="list-style-type: none"> 1. treading new and innovative paths 2. further education 3. household income 4. cooperation with farmers and both up and downstream sectors 5. increasing demand for regional produce 6. image of the professional group farmers 7. financial support dependant on rules 8. urbanisation (Infrastructure, settlements) 	<p>The most important aspects in each of the three blocks of questions</p> <ul style="list-style-type: none"> • inheritance • household income • image of the professional group farmers
Statistical characteristics	
<p>The highest proportion of female farmers in charge of the business is in this group. The proportion of organic farming is low. The proportion of those who have completed a Matura (A-levels) or got an academic title is very high.</p>	
Proportion: 32%	

Agreements between the groups

The aspects which were given either high or low values by all the groups of young farmers are of particular interest. These aspects form “common denominators” among the young farmers.

The following list shows the aspects which were assessed as uniformly of above average importance (first five ranks) by all groups of the young farmers (young market-orientated reformers, young progressive generalists and young staunch traditionalists):

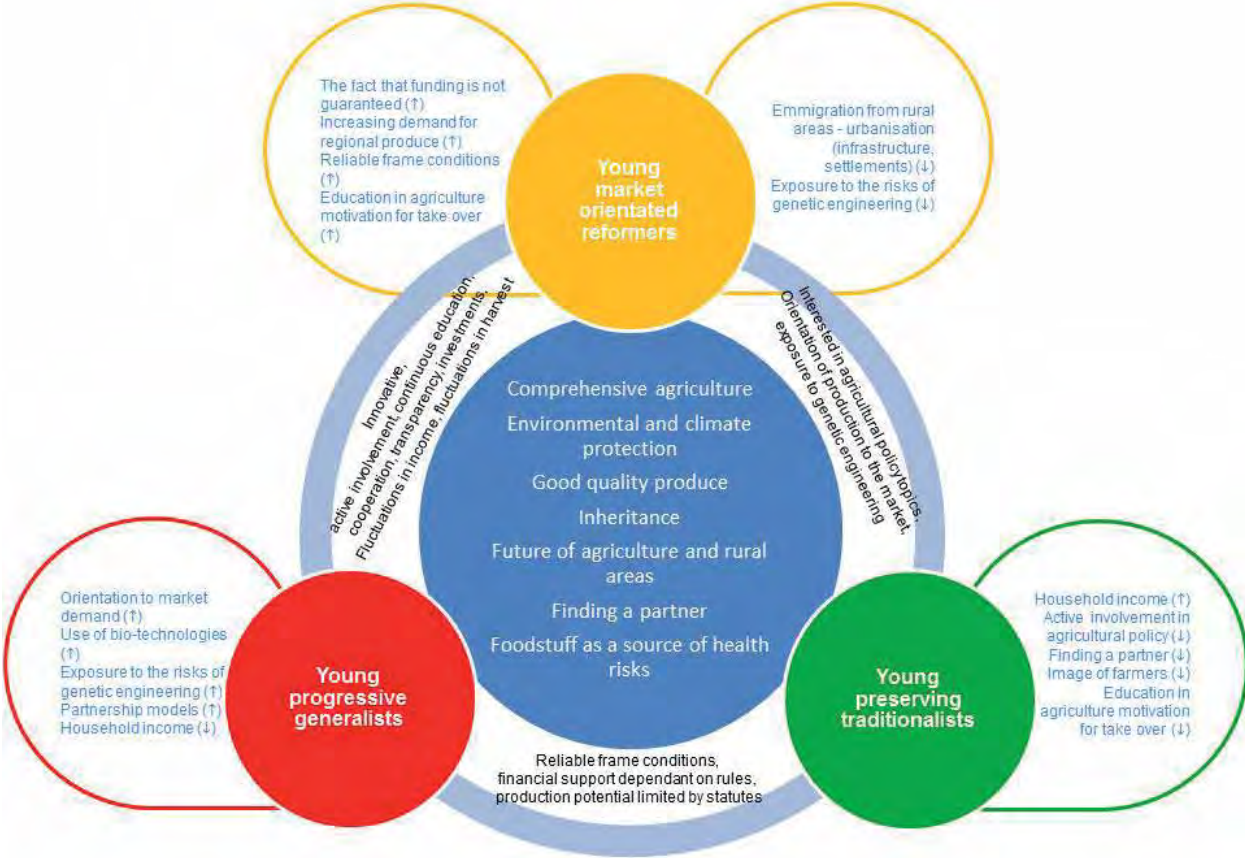
- I, as a young farmer, am of the opinion that I should guarantee that my agricultural produce is of good quality, healthy and non-harmful (good quality produce).
- I, as a young farmer, am of the opinion that I will advocate a comprehensive cultivation of agricultural areas at the same time as preserving the landscape (comprehensive agriculture).
- I, as a young farmer, am of the opinion that I should contribute to the protection of the environment and the abatement of climate change (environment and climate protection).
- I, as a young farmer, have taken on my inheritance with pleasure and enthusiasm (inheritance).
- I, as a young farmer, am of the opinion that young farmers are the future for Austria’s agriculture and her rural areas (future of agriculture and rural areas).

Similarly it is also possible to depict those aspects which were assessed as of uniformly low importance (last five ranks), i.e. not having any influence.

- My activities as a young farmer could become more difficult or even end by the year 2020 because it is difficult to find a partner (finding partners).
- My activities as a young farmer could become more difficult or even end by the year 2020 because consumers see foodstuffs as a source of health risks (foodstuffs as a source of health risks).

This agreement of aspects over all the groups lies at the heart of the following figure. Aspects which fall in the spaces between two types portray topics which both groups consider above averagely important. Aspects in the grey bubbles depict topics which are assessed as above averagely high, important or having heavy influence (↑) or low, of low import or having no influence (↓) respectively by only that particular group.

Figure 5 Agricultural political scope of activities for the collective aspects of different types of young farmer



Differences between the groups of young farmers in comparison to the totality of young farmers

There are systematic differences between the portraits of the different groups of young farmers (totality of young farmers, young market-orientated reformers, young progressive generalists and young staunchly traditional farmers). With the aid of a discriminant analysis it is possible to prove that there are systematic connections and differences between the different groups of young farmers. This identifies which variables the groups significantly discriminate or differentiate. "Significant" here means that the probability is high that the differences or connections empirically measured did not occur by chance. Significance tests which serve to measure significance enable an estimation of the so-called probability of error.

The characteristics which, from the results of the survey, correlate the most with particular groups of young farmer are the NUTS region, the form of agriculture, location of the farm as well as the production type (c.f. figure 6).

Figure 6 Connection between the statistics and the groups of young farmers

Characteristic	Level of significance	Significance
Sex	0.256	
Age	0.206	
NUTS region (AT1, AT2 and AT3)	0.069	☆
Form of agriculture	0.056	☆
Location of farm	0.002	☆☆
Type of production	0.038	☆

Annotation: ☆ significant, ☆☆ very significant

The results of the discriminant analysis make it possible to highlight the differences between the statistics of young farmers in the different groups thereby enabling a better understanding of their (future) attitude towards agriculture. A table of statistics using colours serves to illustrate which statistics within a group of young farmers tend to be over or under-represented. The groups are compared with the distribution of discriminating statistics in the population, which is given in figure 7.

Figure 7 Statistics in the population of young farmers

Male 65%		Female 35%
* 25 to 23 40%	over 35 years old 57%	
Eastern Austria 29%	Southern Austria 27%	Western Austria 44%
Mountain farms 56%		Non-mountain farms 44%
Livestock 27%	Crop 17%	Mixed 56%
Conventional 77%		Organic 23%

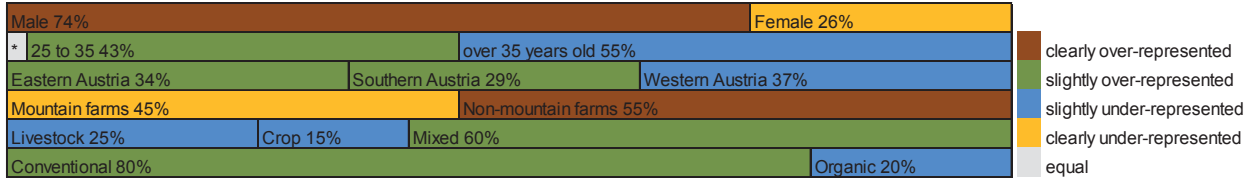
Annotation: * under 25 years old 2%

In the same way as for the overall population a statistics table was derived for each of the groups of young farmers. This highlights how each group differs from the population. The fact that crop farming is slightly under-represented is true for all three groups.

The statistics tables of the individual groups are subsequently discussed in detail. In the following figure, features of statistics which – e.g. male among the young market-based reformers, organic among the young progressive generalists or female among the young staunchly traditional farmers – are clearly more prevalent in a group than in the total sample are marked in brown. Features of statistics which are clearly under-represented are marked yellow. Green indicates a slight over-representation and blue a slight under-representation.

The statistics table for the young market-orientated reformers (figure 8) shows for example that among these young farmers those with non-mountain farms and the younger age group of farmers are clearly over-represented. The young farmers between the ages of 25 and 35, those from eastern and southern Austria, mixed farms as well as those with conventional production are slightly over-represented. Slightly under-represented are the young farmers over the age of 35, those in the NUTS region western Austria and those in organic production – female farmers and mountain farms are clearly under-represented.

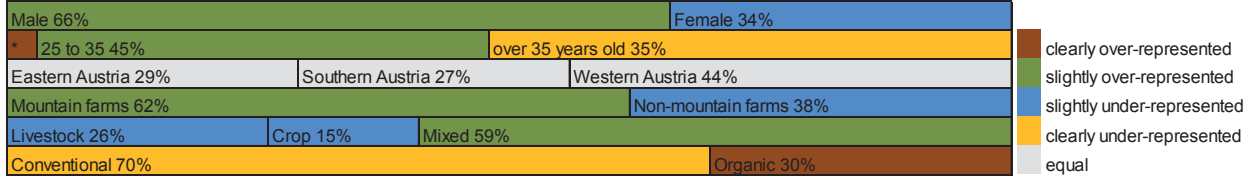
Figure 8 Statistics table of the young market-based reformers



Annotation: * under 25 years of age 2%

The following portrait results for the young progressive generalists (figure 9). This is the group with the highest proportion of organically run farms and young farmers under the age of 25. Slightly over-represented are the younger farmers, the farmers over the age of 35, the mountain farms and instances of mixed farming. The distribution in the NUTS regions corresponds to that of the sample.

Figure 9 Statistics table of the young progressive generalists

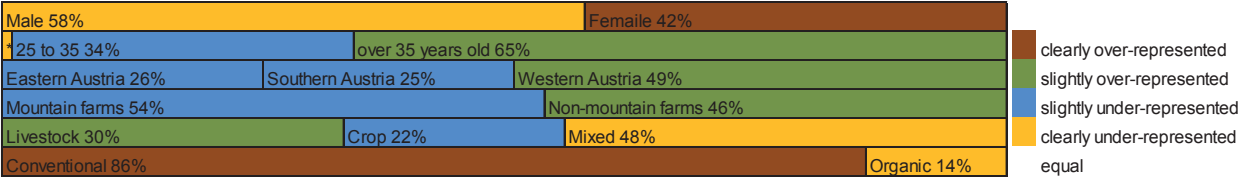


Annotation: * under 25 years of age 3%

The young staunch traditionalists (figure 10) differ considerably from the other groups in that there are significantly more female young farmers and more conventionally run farms among

them. The young farmers over the age of 35, the NUTS region western Austria, the non-mountain farms and livestock farms are all slightly over-represented. In contrast the farms producing crops are slightly under-represented and those run as mixed farms are significantly under-represented.

Figure 10 Statistics table of young staunch traditionalists



Annotation: * under 25 years of age 1%

6 Summary

Background

The reform of the Common Agricultural Policy is currently underway and the course is being set to restructure future domestic agricultural policy. A number of initiatives such as Unternehmen Landwirtschaft 2020 (Enterprise Agriculture in 2020) were started to support the transition actively and play a part in the moulding of the future. The scope of activity of young farmers changes in the same way as the framework conditions, i.e. the market and the agricultural policy. Every farmer already determines his or her future scope of activity at the moment of taking over a farm; they each have their visions and prospects which have to be included into the current agricultural policy discussions.

Survey and assessment

In June / July 2011 a survey was carried out among young farmers who have already taken over or are still to take over a farm. The aim of the survey was to map authentically and comprehensively the responsibilities already perceived by young farmers, their function and prospects as well as their role in the challenges of the future.

In the course of an online questionnaire 910 young farmers answered questions on the following areas:

- (1) How do you see yourself as a young farmer?
- (2) What are the possibilities open to you as a young farmer?
- (3) What is your opinion on the following challenges to your activities as a young farmer?
- (4) As a young farmer how did you experience the process of taking over your farm?

The online survey resulted in an individual portrait for each person questioned. A picture of Austria's young farmers was derived from the individual portraits and a grouping made using factor and cluster analyses.

Portrait of the young farmers

The young farmers are best described by the ten aspects that they evaluated the highest. A shortened version of these statements is listed below (beginning with the most often confirmed characteristic, in brackets the corresponding question block in the questionnaire):

- Guarantee that agricultural produce is of good quality, healthy and non-harmful (possibility)
- Contribution to the protection of the environment and the abatement of climate change (possibility)
- Espousal of the comprehensive farming of agricultural areas at the same time as maintaining the landscape (possibility)

- Acceptance of inheritance with pleasure and enthusiasm (self perception)
- The young farmers are the future of Austria's agriculture and her rural areas (self perception)
- Agricultural or entrepreneurial qualification in further education improves my chances to run my business successfully (self perception)
- The calculation of long-term investments is getting more difficult (challenges)
- A tradition is being upheld and continued (self perception)
- Income varies more and more from year to year due to fluctuations in markets and prices caused internationally (challenges)
- To be innovative and tread new paths in agriculture (self perception)

The take over

Of the young farmers who have already taken over their farms 92% would do it again. In 90% of the cases the activities of the chambers of agriculture, particularly the regional farmers' chambers, followed by those of the technical colleges, the LFI (Rural Further Education Institute), HBLA (federal vocational training college) and the rural youth organisation were helpful during the take over. More information and advice is desired in the areas of national insurance and legal issues. The suggestion was also made to divide the take over into phases: 1) preparation for take over, 2) take over and the subsequent 3) realisation of one's own ideas. The young farmers were lacking in advice for phases 1 and 3. In the eyes of the young farmers the foundations should already be laid one to three years before the actual take over to pave the way for a reasonable settlement which both parties (the person handing over and the person taking on the farm) can agree upon. Critical issues such as retirement shock, family stumbling blocks, obligations to the heirs, living areas as well as any retirement lodge should be discussed and clarified up front to the satisfaction of both parties. The young farmers also suggest that funding for young farmers be graded. If a young farmer is branching out into new areas and has developed an appropriate business plan this should result in a higher grant (one time payment) and, via tax relief in the initial years, benefit the consolidation of the new business.

Groupings of young farmers, differences and overlaps

Based on the individual portraits it was also possible to determine typical patterns and their frequency among the young farmers using factor and cluster analyses. In brief the three typical cluster types can be described as follows:

- **Young market orientated reformers** are young farmers who actively gear their production to the market and exploit potentials of cooperation and technology of any kind.

- **Young progressive generalists** are young farmers who align themselves consistently with the increasing demand for their regional produce. They integrate the changing frame conditions into their farm management as well as possible and use the opportunities presented.
- **Young staunch traditionalists** are young farmers who stick to their roots and are continuing an agricultural tradition. They set store by a good general education and continuous further education and do not rely on the current frame conditions.

With 48% the young progressive generalists make up the largest group. The young market orientated reformers make up 20% and the young staunch traditionalists 32%.

There exist systematic differences between the profiles of the various groups. The characteristics which, based on the results of the survey, correlate the most with certain groups of young farmer are the NUTS region, the form of agriculture, location of farm and the type of production. The young market orientated reformers are predominantly led by younger farmers, display a proportion of organic production and on the whole are non-mountain farms. Mountain farms are heavily represented among the young progressive generalists and the proportion of organic production is very high. The staunch traditionalists display the highest number of women with a clear focus on conventionally run farms as well as a good general education (with academic qualification).

The results of this study provide information on the young farmers. For the orientation of agricultural policy, however, the question remains open as to what extent the results in general and specifically from the groups of young farmers can be transferred to all farmers.

7 Literature

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Summary

This study presented the results of an online survey of 910 young farmers in Austria. In the course of this survey carried out in June/July 2011 young farmers who had already taken over their farms or who are due to take over farms in the coming years were asked about their perceptions of themselves and their future vision. The aim here was to find out the responsibilities that they already noted, the functions they fulfil and which possibilities they see as well as the challenges they will have to face (in their own estimation).

The core results are: the majority of the young farmers in Austria welcomed their inheritance seeing themselves as responsible for the preservation and continuity of agricultural tradition. They classify themselves as innovative and open for new ideas. Although the methods, means and motives differ from young farmer to young farmer they all follow collective aims: to espouse a form of agriculture which is comprehensive but at the same time which preserves the landscape, to contribute to the protection of the environment and the climate, to ensure that their agricultural produce is of good quality, healthy and not harmful. The majority see opportunities in the increasing demand for regional produce and specialities as well as in the intensified use of the potential of renewable resources. For the better part of the young farmers the challenges lie in the calculations for long-term investments, fluctuations in harvests due to climate extremes, speculating with agricultural raw materials as well as heavy animal protection regulations.

The Federal Institute of Agricultural Economics was commissioned by the Ministry for Agriculture and the Environment to carry out this survey within the framework of the initiative "Unternehmen Landwirtschaft 2020 – Jugend mit Zukunft" [Initiative Enterprise Agriculture 2020 – youth with a future]. The results are incorporated into the current discussions on the alignment of the common agricultural policy.



