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Europe**

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CONTENT

Executive summary	2
1 Transition to sustainable agriculture and the role of young farmers and new entrants ...	3
2 Basic definitions and assesment of the problem.....	4
2.1 Young farmers	4
2.2 New entrants	4
2.3 Assessment of the problem.....	5
3 Evidence of a shortage of young farmers in Europe.....	6
4 Implications of the young farmers in agriculture	8
4.1 Approaches to farming of young and old farmers	10
4.2 Young farmers and sustainability of farming	11
4.3 Role of young farmers and new entrants in innovative initiatives	11
4.4 Future transition pathways articulated by young farmers and new entrants	12
4.5 Farm succession process	12
4.6 Different functions of retirement schemes.....	16
4.7 Effects of the support for the setting up of young farmers	16
5 Formal support for young farmers and new entrants.....	16
6 policy recommendations related to the young farmers and new entrants	18
References.....	20
Acknowledgements.....	24
Appendix.....	25

EXECUTIVE SUMMARY

The EU Agricultural census conducted in 2010 revealed that almost **one-third of the farms (29,5%) in Europe have a holder who is above 65 years of age**, which amounts to 3.7 million farms (Eurostat, 2011a). This figure is often presented as a core argument in demonstrating the urgency of the ageing problem in Europe and in calls for an ambitious European policy on generational renewal in the agricultural sector, since it is believed that **young farm operators have a potential to drive structural change, improve efficiency and innovativeness in agricultural sector**. Assessment of the young farmer problem encounters lack of definitional consistency in major policy documents and statistics. Analysis of Eurostat figures demonstrates considerable national differences in young farmer numbers.

Extensive academic literature (WP4) presented evidence supporting the thesis that young farmers are *more innovative* than older farmers. However, the case studies (WP3) provided **very diverse material about the role of young farmers and new entrants in innovative initiatives studied within the FarmPath project**. Some of the pathways appeared to be more attractive for the young farmers and new entrants, who became important actors in development of these alternatives, but at the same time some of the innovative initiatives included obvious economic barriers for entry and as such were developing without direct contribution of young farmers. Overall, the young farmers were not recognized as the exclusive source of innovativeness in transition processes.

Participatory identification of future transition pathways to regional sustainability (WP5) helped articulation of wishes for the agriculture (and other land-based activities) articulated by young farmers and new entrants, such as **keeping family farms** as a major organizational form, emphasis on **short-food supply chains, diversification** of activities, creating new **education opportunities** and **enhancing biodiversity** in agriculture.

Findings from the studies were used for formulation of evidence-based policy recommendations (WP6) that are specific for young farmers and new entrants. These include a new emphasis on creating **improved statistics** about the specific groups of young farmers, **further research** that would clarify the “young farmer” problem with regard to different regional contexts and the assumed innovative potential, releasing **barriers** related to income, education and low prestige of agriculture.

1 TRANSITION TO SUSTAINABLE AGRICULTURE AND THE ROLE OF YOUNG FARMERS AND NEW ENTRANTS

If transitions towards sustainability are to be successful they need to have the support from young farmers and new entrants. Need for this support stems not only from the fact that members of the young generation are deemed to be more innovative, but also from the fact that agricultural sector in Europe suffers from unfavourable age structure, which per se threatens social sustainability of agriculture. The EU Agricultural census conducted in 2010 revealed that almost one-third of the farms (29,5%) in Europe have a holder who is above 65 years of age, which amounts to 3.7 million farms (Eurostat, 2011a). The ageing in agriculture has been reflected in the FarmPath project as a specific trend that has to be taken into account in evaluation of potential transitions of agriculture towards sustainability.

One of the main project objectives has been the identification of mechanisms to provide viable models for young farmers. For this purpose the relation between the *ageing population of farmers* and *engagement of young people and new entrants* in agriculture has been theoretically and empirically explored, and particularly role of the young people in innovative rural initiatives. The integration of the WP 4 in the FarmPath project has based on the following steps:

- Each study country of the project (i.e. seven field research teams) carried out literature review that provided substantial facts about the issue of ageing in agriculture and also information on how this problem has been reflected in expert studies and official policies. With regards to the above mentioned relationships the reviews also included themes, such as intergenerational farm transfer, new entrants in agriculture, and factual information about the political measures in their country that had been launched in order to facilitate set up of young farmers. In addition to the seven country reviews, there was conducted a review at the European level with the same focus.
- Selection of the innovative initiatives (WP3) for the empirical research paid attention to representation of the young farmers to ensure that the cases sufficiently illustrated role of the young farmers' and new entrants' position in the studied initiative related to transition process.
- The question of engagement of the young farmers and new entrants was included in the case study research implemented in each of the study countries.
- FarmPath project also paid attention to the role of young farmers and new entrants within the transdisciplinary dialogue with the regional stakeholders (WP5) by adding and extra session on "Ageing, farm succession, new entrants and farming future" to identify future pathways for young people in agriculture.
- The issue of young farmers and their particular interests has been also included in the reviews focused on policy frameworks and institutional impacts (WP6).

- Finally, the obtained evidence was synthesised and used for formulation of policy recommendations focused specifically on young farmers and new entrants in Europe.

2 BASIC DEFINITIONS AND ASSESMENT OF THE PROBLEM

2.1 Young farmers

There are different approaches used to define *young farmers (YF)*. The most oft-used is the formal definition that is applied in policy documents, or the definition derived from the agricultural surveys conducted by Eurostat and national statistics offices.

- 1) The formal definition of the “young farmer” is provided by Council Regulation (EC) No. 1257/1999 on support for rural development (...). Article 8 describes the conditions for supporting young farmers, who are defined in the following way: under 40 years of age, possessing adequate occupational skills, setting up on an agricultural holding for the first time, the farmer is established as the head of the holding. This definition is used in the measure of national rural development plans that are aimed at setting up aid to facilitate the establishment of young farmers.
- 2) The statistical approach, based on available data from Eurostat, implies that the “young farmer” is a sole holder who is under 35 years of age. This definition is based on the construction of age intervals that are used in the Farm Structure Survey (under 35 years, 35 – 44, 45 – 54, 55 – 64, 65 years and over). Due to the fact that it is this statistical evidence that is widely used in debates on the ageing of the farmers’ population in Europe – see, for example, Delapasqua (2010) – this conceptualisation prevails in the research area. However, some national statistical surveys apply their own definition, e.g. in Scottish Census information, where “young farmers” are considered to be those under 41 years of age (NLR – Scotland), or in Portugal where the lowest age category includes farmers up to 44 years of age (NLR – Portugal).

2.2 New entrants

General understanding of a “new entrant” (NE) in agriculture is based on the notion of an aspirant who tries to break into farming. A more detailed conception of a new entrant is provided by Cook, who defines a new entrant as “a person or organisation acquiring ownership or occupancy of land for the first time in their own right, whether through succession, purchase or contractual agreement of whatever form” (Cook *et al.*, 2008: 16).

If we put together the conception of the “young farmer” and the “new entrant”, we can see that all young farmers, supported by the formal measures under the rural development support from the EAGGF, must also be new entrants. However, some new entrants (for example, in the over-40 age group) who are not eligible for formal support, may represent examples of new entrants in agriculture. Finally, some of the young farmers (either under 35 or 40 years of age) may not be viewed as “new entrants” who are breaking into farming, if

they have already registered as agricultural entrepreneurs in the past. From the statistical point of view, they belong among young farmers, however, they are not new entrants.

2.3 Assessment of the problem

Evidence about young farmers – and as a matter of fact also the definition of such social category – most often draws on statistics about age of farm holders. The Farm Structure Surveys conducted on regular basis by Eurostat use the age bracket ‘under 35 years’. Definition of young farmers is mechanically derived from this age category referring to sole farm holders between 18-35 years.

From a policy viewpoint, young farmers are defined in Commission documents relating to eligibility for financial support. An official definition of the ‘young farmer’ is provided by Council Regulation (EC) No 1698/2005 on support for rural development (...). Article 8 describes the conditions for supporting young farmers, who are defined as: “under 40 years of age, possessing adequate occupational skills, setting up on an agricultural holding for the first time, the farmer is established as the head of the holding” (EC, 2005). This definition is used in national rural development plan measures that are aimed at setting up aid to facilitate the establishment of young farmers. Key to this definition is that the young farmer is also a new entrant, and head of the holding. Joris Baecke, president of the CEJA, noted that such policy definition of young farmers reflects the difficulty in starting up an agricultural enterprise, since “taking over a farm from your employer or your parents can be a very long process, before enough capital is gathered to really take over the business” (EurActiv, 2013). In this context, a holder until the age of 40 is still considered a young one with a potential to rebalance unfavourable age structure of farmers in Europe.

The descriptions of beneficiaries to Measures 112 (and partly Measure 113) illustrates the gist of the definitional problem at European levels: young farmers are conflated with new entrants. While these two categories of individuals cannot be expected to be mutually exclusive, neither are they synonymous: new entrants can be of any age. This implies that some new entrants (for example, in the over-40 age group) who are not eligible for formal support, may represent examples of new entrants in agriculture, and some of the young farmers (either under 35 or 40 years of age) may not be viewed as ‘new entrants’ who are breaking into farming, if they have already registered as agricultural entrepreneurs in the past. From the statistical point of view, they belong among young farmers, however, they are not new entrants. The ‘young farmer problem’, as discussed at European level, is thus alternately a ‘young sole land holder’ problem in terms of statistical evidence and a ‘young new entrant problem’ in terms of policy response. Farming successors are only addressed if they become sole holders within the required age limits.

The young farmer problem is clearly framed by the ongoing modernisation of the agricultural industry, which is associated with a decrease in total number of farmers. Results of the EU-Agricultural census reveals that between 2003 and 2010 the number of holdings in the EU27 fell by 20% (Eurostat, 2011b). Missing from the EC documentation is an indication of the appropriate number or percentage of young farm operators that would set out a clear point

at which the number of young farmers becomes a 'problem'. Construction of this line and also the young farmer problem is thus subjective and varies geographically.

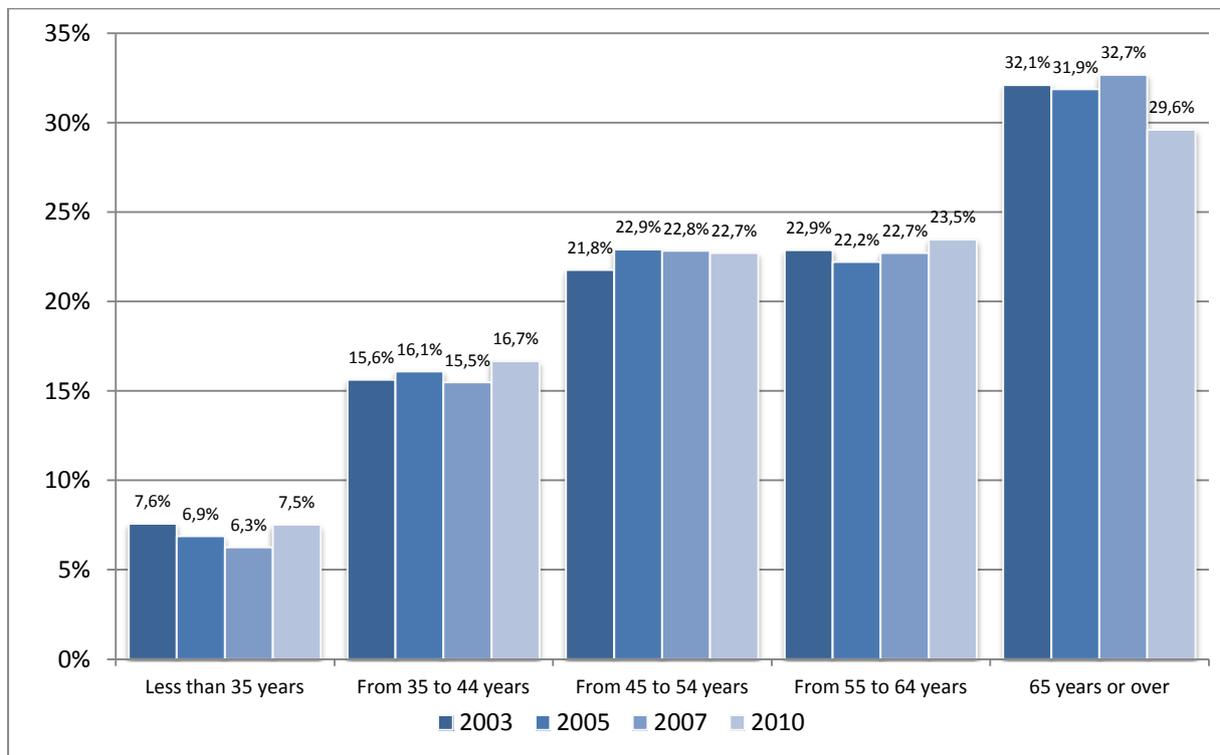
What constitutes the 'young farmers problem' is the assumed loss of potential that young farmers and new entrants bring into the agriculture. It is believed that young farm operators have a potential to drive structural change, improve efficiency and innovativeness in agricultural sector (DGIP, 2012). In line with this, barriers to entry are usually identified entirely in economic terms, relating to the economic viability of the holding, the volume of employment generated (i.e. the potential for full-time employment) and the sufficiency of income, and overlook other aspects with regard to the role of young farmers in the agricultural sector.

3 EVIDENCE OF A SHORTAGE OF YOUNG FARMERS IN EUROPE

Owing to the inconsistency in national statistics (which frequently apply different age classifications), the Eurostat statistical evidence is widely used in debates on the ageing of the farmers' population in Europe – see, for example, Delapasqua (2010). Key question, how many young farmers are in Europe, is usually answered with the use of the Eurostat classifications, in which the young farmer is also a sole holder, not necessarily a new entrant, but must be under 35 years of age. This definition is based on the construction of age intervals that are used in the Farm Structure Survey (under 35 years, 35 – 44, 45 – 54, 55 – 64, 65 years and over). As such, the survey is not consistent with the definitions of young farmers used in European Union funded measures, but remains the best available source of data on the number of young farmers in Europe. What is completely missing from the statistics, is closer information about the farm successors and their age. They are potentially included in the sectoral statistics about the labour forces, but it is not possible to distinguish them from other employees on farms. Absence of this information makes the analysis of the young farmers, who are taking over these family farms, very difficult.

The latest Agricultural census (conducted in 2010) revealed that almost one-third of the farms (29,5%) in Europe have a holder who is above 65 years of age, which amounts to 3.7 million farms (Eurostat, 2011a). This figure is often presented as a core argument in demonstrating the urgency of the ageing problem in Europe and in calls for an ambitious European policy on generational renewal in the agricultural sector (CEJA, 2010). The basis of the ageing problem in agriculture is the reduced rate of entry of young farmers coupled (indicated as farm holders in the age less than 35 years) with high share of elderly farmers (indicated as farm holders in the category above 65 years of age). The share of young farmers in EU agriculture decreased from 2003 to 2007 (from 7,6% to 6,3%). The latest agricultural census shows a slight increase of this age category (7,5% in 2010) and decreased share of elderly farmers (29,6%). The share of elderly farm holders, however, remains relatively high – every second farm in Europe (53,1%) is managed by a farmer, who is in the age above 55 years (Figure 1).

Figure 1 Share of farm holders by age category for the years 2003 - 2010 (Source: Eurostat, 2009; Eurostat, 2011; authors' calculations)



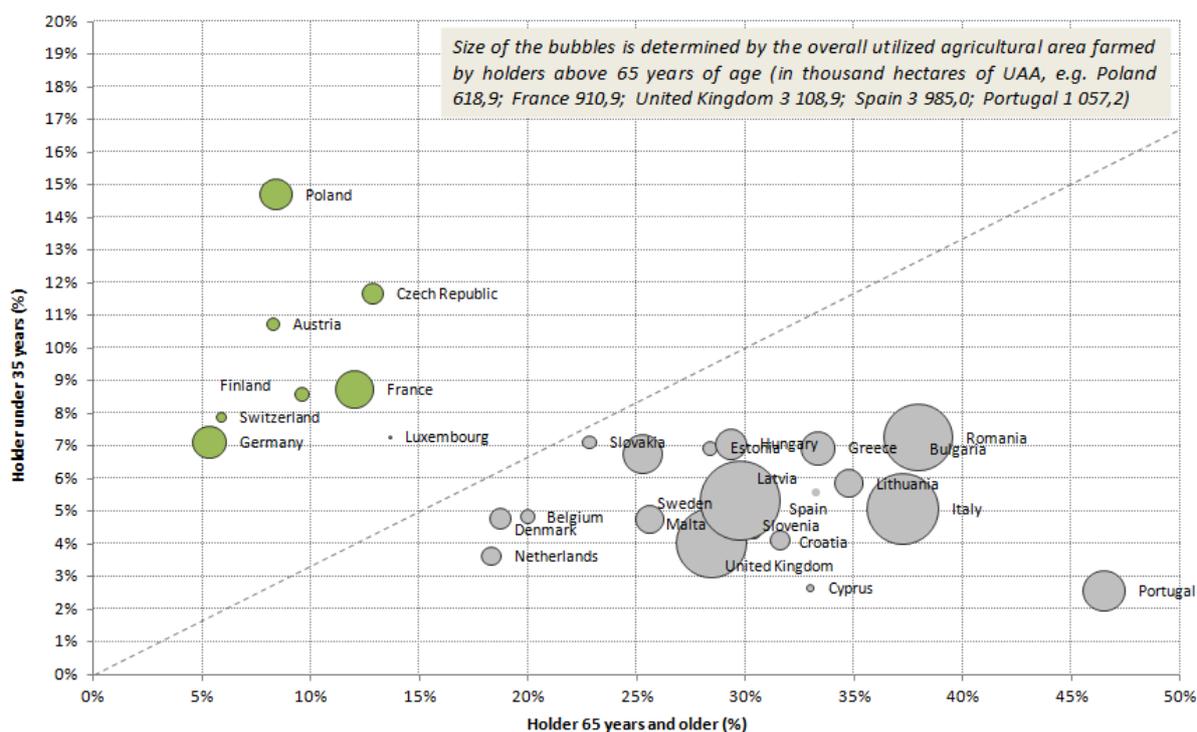
This proportion refers to holdings throughout Europe and amasses information from very different agricultural sectors (regarding size, structure, proportions between different age groups, regional differences within a country). It is important to note that the population of Europe overall is ageing rapidly, mainly due to the increasing life expectancy and declining birth rates (Maltby & Deuchars, 2005). However, this demographic ageing is particularly visible in the agricultural sector.

Owing to the different total numbers of farmers in European countries, we assess the relative percentage of young and elder farmers, and how this relates to each other. The percentage of holders in the 65 and older age group ranges from about 5% (in Germany) to more than 46% (in Portugal). The percentage of young farmer holders (age group under 35 years) ranges from about 2% (in Portugal) to almost 15% (in Poland). This implies that the age structure in many countries is often widely varied. This particularly applies to Portugal, Cyprus, Italy and Slovenia, where is high proportion of older farm holder and a low proportion of young farmers (Figure 2).

The age structure of population of farmers can be described with the use of a modified index of ageing (ratio between the elder and young farm holders). In this respect it is possible to recognize two groups of countries (see the Figure 1). Although the absolute ratio characterising a young farmer problem is undefined, it would be reasonable to assume that countries that have more younger farmers than older farmers do not have a young farmer problem (i.e. Poland, Austria, Switzerland, Germany, and Finland). Given that modernisation

is expected to lead to ongoing decreases in the number of farmers, there would also not appear to be a shortage of young farmers in the Czech Republic, France or Luxembourg. Statistics suggest that there is a shortage of young farmers in the remaining countries, which at the same time have a relatively high share of elder farmers. With respect to the presented classification, there are considerable national differences showing that in some countries the 'young farmer problem' is more apparent than in others. Given the clear national differences, it is also likely that there would be also regional differences in those countries, so regional variation should also be considered.

Figure 2 Relative share of farms with elder and young sole/main holders (Source: Eurostat 2011; authors' calculation)



4 IMPLICATIONS OF THE YOUNG FARMERS IN AGRICULTURE

The ageing farmers' population is an outcome of a complex set of factors. According to (Carbone *et al.*, 2008), the most notable include:

- 1) the presence of entry barriers,
- 2) the presence of exit barriers,
- 3) the persisting low level of the productivity factor in agriculture, and
- 4) the presence of inter-sectoral labour force movements in the intermediate age classes.

The low engagement of young farmers is considered as a threat to the agricultural sector for two reasons. Firstly, the low engagement of young farmers reduces the competitiveness of the primary sector, because the older holders of farms are less inclined to invest in and apply innovations to their businesses. Secondly, an inadequate generational turnover (the absence of young farmers who would take over farms) may, in an extreme situation, place the actual survival of agriculture in Europe at risk. Despite the unfavourable age structure in agriculture, the issue receives substantial rhetorical comment, but very little research, as was mentioned in the NLR – Scotland. This remark basically holds for all countries.

In most regions, the origins of the problem of ageing are related to the depopulation of rural areas. This fact is mentioned in national reports from Scotland, Greece and Germany and the Czech Republic (NLR – Scotland; Panagiotou, *et al.*, 1992; NLR – Germany; NLR – Czech Republic). For instance, before World War II, in the Czech Republic the age structure of farmers was favourable (which was due to the number of farmers during those times). After World War II and the collectivisation of farming (in terms of modernisation tendencies), the age structure did not deteriorate. Particularly in the 1970s and 1980s, the government supported the migration of people to the countryside, by providing houses and jobs on collective farms (to counterbalance the rural exodus).

In the post-socialist countries, i.e. Bulgaria and the Czech Republic, and partly in Germany, an important role was played by the transformation processes in the 1990s. These processes often resulted in high income disparities and employment in agriculture thus became less attractive to young people (Blagoeva-Jarkova 2008, Mishev 2010b). More specifically, in the case of Bulgaria, Bankova indicates that, at the end of the 1990s, a set of factors were present which prevented young people from aiming at employment in agriculture (Bankova 2002). Still nowadays, rural areas are often perceived as unattractive and not offering alternatives for skilled and qualified young people (NLR – Bulgaria).

In the case of Greece, the involvement of young people in agriculture is also influenced by other inhibitive factors, such as the small size and structural problems of agricultural holdings, deficiencies and shortcomings due to agricultural and rural development policies, side-effects of the demographic problems on the agricultural population, the ongoing reduction of youth participation in the economically active population (Kazakopoulos, 1996). The shortage of young farmers is emphasised by severe entry problems in terms of the high costs of installation (Vounouki *et al.*, 2001). A similar situation is to be seen in some parts of Portugal where, particularly in more depressed and isolated agricultural regions, people would rather undertake different and less arduous means of livelihood due to the agricultural sector wishing “another future” for their descendants (Sottomayor *et al.*, 2011).

The following sections give an overview of the results of different studies conducted in different parts of Europe that were framed by the above-mentioned points.

4.1 Approaches to farming of young and old farmers

There are numerous studies which have produced evidence supporting the thesis that young farmers are *more innovative* than older farmers. Empirical studies that have employed quantitative models have verified that *age* is an important variable for adopting innovative technologies, such as organic farming. Laepple *et al.* (2011) researched the differences between early and late adopters of organic methods and discovered that the early adopters were the youngest to adopt organic farming and their decisions were found to be relatively less profit-related.

When Mann (2005) tried to explain the relations underlying the provision of animal welfare by farmers, he identified age (next to the size of farm, education, family size and capital intensity) as an important predictor of the farmers' willingness to enhance the welfare of animals kept on farms.

A detailed analysis of some features of individual farm holders and their households in Slovakia, conducted by Blaas (2003), provided evidence that the social background of farmers influences the type of farming which they pursue. However, economic factors also play a very important role. In the Bulgarian context, Koteva (2009) pointed out that, due to economic pressures, young farmers are oriented primarily towards high-income activities - growing vegetables and perennial crops - and their interest in the field of crop-planting and livestock breeding is significantly lower.

Potter *et al.* (1992) took the opposite perspective and attempted to discover what decisions are taken and what farmers do when they reach old age. His study shows that elderly farmers lack the incentive and motivation to continue expanding the business, especially elderly farmers without successors. Farmers with low expectations of the succession of their farms tend to simplify their enterprise structure and reduce the intensity of farming. A more provocative interpretation suggests that (together with the demographic and lifestyle reasons for an ageing workforce), the current system of decoupled farm support is providing a *de facto* pension, as long as land is retained in Good Agricultural and Environmental Condition (NLR – Scotland).

A similar pattern was observed in Austria by Vogel *et al.* (2004), who discovered that holders with a potential successor have greater motivation to enlarge their farms. More specifically, the succession intention influences the farm investment decision about 10 years before the farm is actually taken over (Calus *et al.*, 2008). Similar patterns were observed in Bulgaria by other authors (Koteva *et al.*, 2009; Mladenova, *et al.* 2007), describing that older individual holders are often sceptical about the continuity of farming for the next generation and thus have no incentive for the accumulation and allocation of financial resources for their descendants. The same applies to Portugal (Sottomayor *et al.*, 2011), confirming that the willingness to make investments in the farm is conditioned by succession. As a result, the intention to adopt new farming activities is much higher on a farm with a potential successor, as was proven by a survey conducted in Portugal (NLR – Portugal).

Based on empirical study in Spain, it was observed by Gonzales *et al.* (2001) that young and elderly farmers structure their identities differently. Elderly farmers identified themselves as labourers, whereas new professional and business identities are more typical of young farmers. However, the redefinition of identity must be supported by an adequate size of farm and type of farming.

4.2 Young farmers and sustainability of farming

Quantitative studies have verified that socio-economic characteristics, together with attitudes and beliefs, influence their views on sustainability. Comer *et al.* (1999) showed that there was a positive relationship between farmers' education, the number of farming practices adopted and sustainable agricultural systems. According to his results, sustainable farmers were younger, compared to conventional farmers. Similarly, in a Belgian study, Vanslebrouck *et al.* (2002) found that younger and better educated farmers are more willing to participate in voluntary agri-environmental policies. With regard to the main goals of the European Agricultural Policy of having a sustainable and efficient system of agriculture, van Passel *et al.* (2007) attempted to measure and assess sustainable efficiency (economic performance and sustainable use of natural resources). Generally, it appeared that larger farms (dairy farms in Flanders) have higher sustainable efficiency, which is positively affected by support payments and the farmers' age.

4.3 Role of young farmers and new entrants in innovative initiatives

The case studies provided very diverse material about the role of YF and NE in the initiatives studied within the WP3. The young farmers played a significant role in the initiatives dealing with local food systems ("New forms of governance"), some part in the initiatives emphasizing collaboration in agriculture ("Farmer collaboration"), but played no role in others, such as "Renewable energy production". Overall, the young farmers were not recognized as the exclusive source of innovativeness in transition processes. Potential for innovativeness stemmed from wider configurations of relationships that were used by different actors, who were not necessarily young farmers.

What more, it has become clear that some initiatives that are considered innovative and address some major questions related to sustainability (such as production of renewable energy on farms) do not allow young farmers to enter due to economic barriers. Young people are typically unable to leverage the capital required for large-scale land purchase or farm diversification investments. However, the presence of a successor on a well-capitalised farm was often the impetus for farm expansion and diversification.

Similar situations were investigated in cases focused on the role of new entrants. In some initiatives the new entrants have become important drivers of change, since they brought ideas from other sectors different from agriculture. Evidence was included again the WP3 cases that were describing the "Lifestyle farming" initiatives or the emergence of farmers' markets within the "Alternative marketing channels" initiatives. Hybrid actors – those with connections across multiple sectors or levels within sectors (e.g. farming and food supply

within the agri-food sector) – were found to be important sources of innovation, and were often new entrants.

4.4 Future transition pathways articulated by young farmers and new entrants

Participatory identification of multiple pathways towards regional sustainability of agriculture (WP5) also include young farmers and new entrants as a specific group of stakeholders, who were asked to describe their future visions of agriculture and potential pathways for reaching this point on the regional level.

Evidence from the seven study countries, where young farmers and new entrants were interviewed, enabled to create a vision that included many similar features. Young farmers' wishes for the future of agriculture mostly emphasized family farms as major organizational form and mixed farming (plant production together with animal husbandry). From the economic point of view desired business should focus on diversification of activities, production with high added value, and distribution through short-food supply chains, which is together seen as a prerequisite for improving income from agriculture.

It appeared that not only economic barriers hinder higher involvement of young farmers in agriculture, but also specific social aspects. It was identified in many countries that young farmers are missing positive image of agriculture in the eyes of general public, which may eventually prevent them from working in this field. Young farmers and new entrants also wished for more educational opportunities that would help them to make their businesses more innovative. Regarding the environmental aspects of their visions, the young farmers appeared to be more cautious about landscape management and biodiversity.

Despite the clearly articulated picture of future agriculture envisioned by young farmers (described above), it is important to say that many of these ideas were also present in description of other stakeholders' groups, and it is not possible to assign them specifically to the young farmers and new entrants.

4.5 Farm succession process

The farm succession process represents a well-researched topic. Insights into the process of how farms are transferred to the new generation also enable the observation of important entry and exit factors for young and older farmers respectively in a rural setting. The problem of farm succession is usually illustrated, and only on a general level, using the statistics on the age structure of farm holders. Detailed figures from surveys are not available, with a few exceptions, for example in Germany, where the following facts are available: in 2010, even 70% of the 187,000 farms with a manager aged 45 or older faced unclear or a lack of succession, of which 20% had a manager aged 60 or older. These holdings account for approx. 7,5 million hectares of agriculturally utilised land (UAA), a proportion of 45% of the total UAA of all German holdings. The closing down of farms is expected to further accelerate agricultural structural change (Statistisches Bundesamt, 2011, 2011a).

The main entry problem is the availability of land. The scarcity of agricultural land results in high prices that require new entrants to have a significant amount of capital to start a business. Inheriting a farm holding is for many candidates the only way of breaking into the sector. This fact was explicitly mentioned in the Western European countries (UK, France, Germany, Greece). In some countries, such as the UK, farming is viewed as a “closed profession”, meaning that only those individuals who have inherited farming resources are able to afford to continue farming (Symes, 1990).

Farm succession processes are shaped by many factors of a cultural, economic and also legal nature that regulate inheritance. In some countries (such as Bulgaria, Germany and France), legal Acts include “safeguards” preventing land fragmentation during a transfer of land from one generation to another. In other countries (Scotland, Greece, the Czech Republic), there is no such law. However, in some countries (Germany), the legal restrictions are not viewed as efficient as they may seem in terms of the facilitation of farm succession and supporting the maintenance of agricultural holdings (Tietje, 2003).

General legal regulations may conflict with the principle that is supposed to maintain the unity of the farm, as was pointed out in the French report (NLR – France). It is not only the legal framework, but also economic factors that may complicate the succession of farms, especially when the value of farming assets grows, since it often includes challenges by non-successors for their share of the farm’s assets upon the death of the primary farmer. The cost of ‘paying out’ non-inheriting siblings can then lead to the dissolution of the farming business, as was described in Scotland (NLR – Scotland).

In Greece, the inter-generational transfer of farms is mainly related to inheritance. According to the research conducted by Kazakopoulos (1996) on land ownership and succession in Greece, it was found that 38.0% of the holders had come to own their land by inheritance, 40.4% by a combination of inheritance, purchasing and transfer from relatives, whereas the transfer of agricultural land by parents is the third most important factor in Greece. This pattern is based on a specific cultural approach to land and farming, although some researchers have pointed out that this tradition is also changing. Kazakopoulos (1996) discovered that elderly farmers would be more willing to let their land go to third persons, while young and middle-aged men would rather sell their land, if they had no successor.

Similar findings can be derived from the statistical facts about farm succession in Germany, where farms are still (and will remain being) most commonly *transferred to farmers’ children and other relatives* (Statistisches Bundesamt, 2011). The process of the intra-family farm succession is influenced by the age and health of the senior farmer; claims to old-age pension of the senior farmer; age, qualification and family status of the potential successor; the will to transfer responsibility to the younger generation; in the case of narrow generational succession, the readiness of the senior farmer or potential successor to adopt activities outside the farm (Johannes, 2007). Individual family characteristics as well as personal attitudes are more important predictors of succession than the regional economic structures of different German regions (Tietje, 2003).

Intra-family farm succession is also typical of France, where 70% of new entrants are based on succession within a family (NLR-France). The farm succession process is formalised and includes several distinct steps.

The farm succession process is significantly influenced by economic conditions. Many studies provide evidence that prospering farms are more attractive to potential successors and the entire process is more “smooth”. Potter *et al.* (1996) conclude that succession is a sorting process that widens the gap between expanding and declining businesses. Expanding businesses are more likely to have successors, and the resources to support them. Less successful businesses are less able to support a succession process, and may therefore end with the retirement of the current farmer. This pattern has also been recognised in Italy, where they have noticed that larger farms are more effective and therefore more attractive (than the smaller holdings,) gaining in this way additional potential to grow (Carbone, 2008).

German studies from the 1990s pointed out that the probability of succession increases with the size of the farm, the livestock on the farm, the farmer’s age and other factors (Fasterding, 1995; Fasterding *et al.*, 1999). According to Glauben *et al.* (2009), the larger and more profitable farms (specialised in dairy production) are likely to have an intra-family successor. Even the updated statistics for Germany demonstrate that the *larger* the farm, and the more *important as a source of income* (i.e. full-time vs. sideline farming), the more frequently a successor is nominated in good time before the senior farm manager’s retirement (Statistisches Bundesamt, 2011, 2011a).

However, according to Calus *et al.* (2008), the prosperity of farms needs to be better conceptualised. According to his findings, the probability of succession is determined by the total farm assets (that is a broader indicator of the farm value), which is a better explanatory variable of intention to transfer the farm.

The succession of farms is also heavily influenced by the CAP, and namely the direct payments. A study from Bulgaria (Nikolov, 2011) has shown that families with children plan expansions of farms only if the future CAP payments will be the same as at the moment. Without CAP support, farmers do not intend and do not plan to encourage their children to continue working as farmers. This argument accords with the argument about the economic condition of the farms, and their prosperity, as an important factor influencing the succession process.

The study by Man (2007) provided an insight into the motivation of young people to take over farms. His survey of Swiss potential successors pointed out the importance of identity-related variables, such as continuing the family tradition, preferences for working autonomously or with animals. Farm size and income prospects were identified as factors that gain importance during the latter stages of succession. The education of a potential successor is a very important factor in the succession process. According to an Irish study conducted by Hennessy (2007), the “smooth” succession of a farm can be undermined by the widening gap between the income expected from farming when compared with non-farming occupations. In this context, there is a negative relationship between higher education and the choice of full-time employment on a farm. The choice of education and

occupational career is made jointly, whereas the existence of more profitable farms causes potential successors to pursue full-time farming instead of education.

The conditions of farm transfer impact on the financial provision for the households of farmers who have retired after passing the business on to another generation. Drawing on traditional rural institutions, it appears that the right of abode becomes important, since pensions may not always cover the current cost of living for senior citizens (Rossier *et al.*, 2007). More detailed information on how this fact influences the decision of older farmers is not available.

The succession process is strongly formed by gender. Typically, a male heir is nominated for farm succession. Errington *et al.* (1993) argues that patrilineal succession has been the most common pattern in the UK. The same pattern was identified in Greece, where Ananikas *et al.* (1982) showed that only a small proportion of farmers with daughters decide to pass their business on to them. The same applies to Germany (Schmidt, 2007). In some countries (e.g. Greece), this results in the presence of a male-centred ownership system, in which women perceive significant barriers to owning land.

In some countries (e.g. France), a significant proportion of farms run by women results from a transfer between spouses, when the man retires and the woman takes over the farm. In 2005, this category represented 15% of the total of new entries in France. However, this kind of entry does not contribute to the renewal of farming generations.

Qualitative research has provided the evidence that a decision on the farm successor is based on different expectations for daughters and sons. Fisher (2009) addresses this process from the perspective of the socialised farming identity. Her study found that female farm children were typically not socialised into active farming roles. Fisher argued that, owing to the lack of active engagement in farming activities, young women on farms did not develop a self identity as successors and therefore did not pursue farming for themselves, thus feeding into the cycle of marginalisation from the farming enterprise. Rodrigo (2010) showed that, on Portuguese farms, farming machinery is most often operated by sons, despite daughters also having the necessary drivers' licences. Similar findings were presented by Rossier (2008), who analysed the gender differences in the Swiss context and confirmed that sons are more often expected to carry on the work of their parents. Daughters are disadvantaged in comparison to sons. They have more freedom in choosing their future careers, but if they opt for farming, they must articulate their interest more clearly than sons in order to take over the farming business. Similar patterns can be found in France, where parents usually prefer to transfer the farm to a son rather than to a daughter (Rieu *et al.*, 2008).

Results from Germany (Schmidt, 2007) challenge the importance of gender in farm succession. According to this study, a more important role is played by the complementarity of the daughters' and parents' farming knowledge, the process of gradual transfer of increasing responsibility to female successors, with regard to the concept of the 'succession ladder' as introduced by Commins & Kelleher (1973). Another aspect dealt with within the study's scope is the role of the father-daughter relationship in succession. With regard to

this, the author describes the type of so-called 'father's daughter' who is significantly influenced by her father as a central figure and has farm succession as her goal.

4.6 Different functions of retirement schemes

Early retirement schemes are applied in order to ease the entry and exit barriers to agriculture. The early retirement policy is often combined with the policy of aiding new and/or young farmers to enter the business. From the economic point of view, retirement schemes are often a subject of critique. Economic models using the data from Northern Ireland show that the economic case for the implementation of the scheme is quite weak (Davies *et al.*, 2009) and the effect on retirement age is relatively low.

A critical evaluation of the early retirement policy instrument is also present in the work of Bika (2007). Her study shows that the instrument helps to increase the income of the retired farmer. However, the scheme is not very successful in enlarging farms or encouraging new entrants, since the majority of transfers occur within a family. The farmers' early retirement scheme is related to the traditional patterns of inheritance rather than to farm structures per se. What is more, according to Cook *et al.* (1997), the retirement schemes undertaken in other countries have succeeded primarily in assisting farmers who were planning to retire in any case, and therefore the schemes did not represent good value for money.

4.7 Effects of the support for the setting up of young farmers

The policy measure aiding young farmers to set up a farm has been implemented within the Rural Development Programmes for the 2000-2006 period. The majority of young farmers in Greece have utilised this type of aid.

The efficiency of the measure in the Italian context has been analysed by Carbone *et al.* (2008). The study has shown that the majority of transfers occur within families. In this planning period, the average value of financial support (18 000 euros) was perceived as inadequate for purchasing sufficient agricultural land for farming. Regarding the importance of gender in farm succession, the formal support for young farmers (irrespective of gender) represents an important factor to enable women to enter agriculture (Gidarakou *et al.*, 2006).

5 FORMAL SUPPORT FOR YOUNG FARMERS AND NEW ENTRANTS

The previous programming period (2007-2013) included several measures used for attracting the young generation to rural areas and which support starting and enterprise. These include financial means, opportunities and information means.

On the European level, Measure 112 which has focused on setting up young farmers, is of the greatest importance. Beneficiaries must be under 40 years of age, be setting up an agricultural holding for the first time, have the necessary skills and competence, and submit a business plan. According to Dellapasqua, for the period 2007-2013 the Measure has been

programmed in 24 member states (except Malta, the Netherlands and Slovakia). The support counts on 2,89 billion euros from the EAFRD and 2,11 from national budgets. The highest total public expenditure programmed by a member state is 1,6 billion euros for France, and with 4,8 million euros, the lowest is in Germany.

Other tools important for young farmers include (1) modernisation of agricultural holdings, (2) vocational training and information events and (3) cooperation in the development of new products, processes and technologies in the agricultural sector, (4) diversification into non-agricultural activities, (5) LEADER approach, (5) participation in food quality schemes,

In Greece, support measures for young farmers have been used since the late 1980s. According to the Ministry, due to the implementation of the measure for Young Farmers during the 2nd (1994-2000) and 3rd (2000-2006) Programming Period, almost 30 000 young farmers have been established in rural areas. Greece also implements the Early Retirement Scheme, which is available for farmers between the age of 55 – 64 with a minimal size of agricultural land and a successor with the required skills, who must be between the age of 20 – 39 years. The aid for early retirement is given for 10 years. The new successor is required to expand the business in the following three years (NLR – Greece).

In France, specific measures have been implemented that are aimed at non-family farm transfers. These include legal tools enabling the combination of all the production factors into a “farm fund” and, in this way, facilitating the transfer of the farm. Another measure includes the possibility of increasing the pension of an older owner of a farm if he/she sells the farm to a younger successor. The French younger policy seems to be the most extensive and also includes several measures focused on new entrants in agriculture, such as farmland preservation from urbanisation and other uses, direct support to new entrants in local and regional policies (NLR – France).

In Germany, support schemes for young farmers are implemented selectively in different regions. Measure 112 is not part of the National Framework Regulation and is implemented only in one state (Rhineland-Palatinate). In the previous planning period (2000-2006), the Measure was implemented in all but five German Federal States. The early retirement scheme is currently present only in Saxony due to the commitment remaining from the previous funding period (NLR – Germany).

In Portugal, the setting up scheme for young farmers is granted by the Portuguese national funding framework - PRODER- Measure 113 - in the form of a capital grant comprising two mechanisms: i) a single start-up premium with a maximum of 40 % of the investment with a maximum of 30 000 euros for individual farmers and 40 000 euros for collective holders. The conditions for support have changed since the last programming period. The approved projects in the previous programming period show that the measure had different uptakes regionally: the Northern interior and the coastal areas around major cities such as Lisbon and Porto were the areas where the number of approved projects for young farmers was higher, while in the region of Central Portugal the young farmers' projects were rarely approved (NLR – Portugal).

In the Czech Republic, support schemes were introduced after joining the EU. The pre-accession programme for rural development (SAPARD) did not include measures aimed at young farmers. This has changed with the introduction of the Rural Development and Multifunctional Programme (2004 – 2006). Within the current Rural Development Programme in the Czech Republic (2007 – 2013), the setting up scheme for young farmers, coupled with the retirement scheme, is considered one of the priorities of the programme (NLR – Czech Republic).

6 POLICY RECOMMENDATIONS RELATED TO THE YOUNG FARMERS AND NEW ENTRANTS

Based on the evidence generated in different WPs policy recommendations related to the YF and NE were formulated. Some of these recommendations are specific for the group of YF. Some of these recommendations are expected to bring more general effects enhancing transition processes in agriculture with secondary effects for the young farmers.

- The distinction between young farmers and new entrants needs to be made in strategic documents and statistics. Currently statistics often lack definitional consistency and make the assessment of the young farmer problem more difficult. Based on the evidence from the project, it is assumed that the both groups, young farmers and new entrants differ in their needs, so it is less effective to design measures that do not distinguish between those two groups.
- Further research is needed in order to clarify the “young farmer problem”. Empirical investigation proved that young farmers play important role in some of the innovative initiatives supporting transition processes in agriculture, however, their role is not clear. It is also possible to argue that young farmers may play different role in these processes in comparison with new entrants, however more detailed evidence through further research would be needed to evaluate their exact role.
- One of the most important barriers for young people, who are entering agriculture, is income that can be generated from farming. It is thus recommended to improve income from farming, especially from farming on small farms through support for diversification, part time farming and existing payment schemes.
- More generally, there should be enhanced education in areas of technology, environment and business skills. Evidence generated in the project proved a clear demand of young farmers and new entrants in those selected areas.
- Living and engagement of young people in countryside goes hand in hand with life quality of these areas. Increasing life quality in countryside can thus been seen as a major way for preventing outflow of young people.
- Alternatively, owing to the importance of non-farming experience to innovation, rural young people should be encouraged to work off-farm and seek urban employment, and return later in life.
- Empirical evidence from the project also pointed out that agriculture and farmers in many countries suffer from low prestige. It is thus recommended to improve communication about agriculture and farmers’ role in rural areas. These steps may

improve legitimacy of the public spending and in general prestige associated with farming.

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APPENDIX

Figure 1 Share of farm holders less than 35 years by different size category of UAA (Source: Eurostat 2011; authors' calculation)

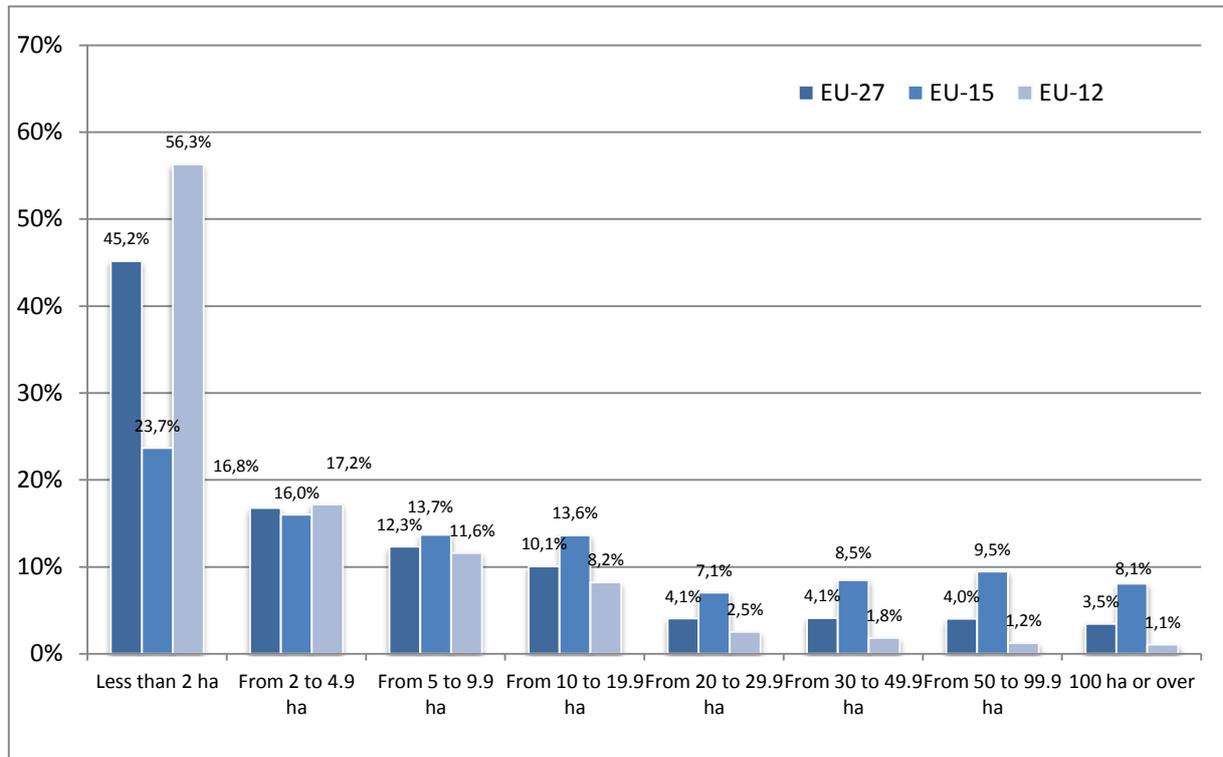


Figure 2 Share of farm holders above 65 years of age by different size category of UAA (Source: Eurostat 2011; authors' calculation)

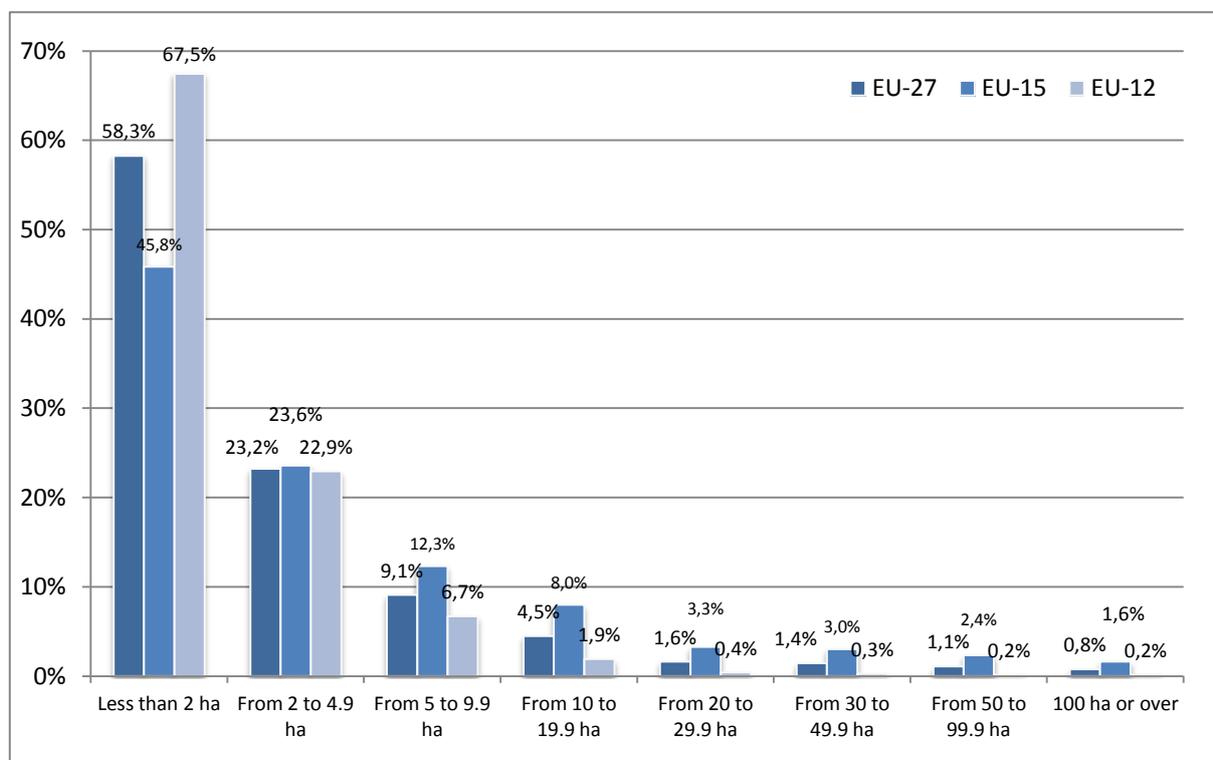


Figure 5 Economic performance of holdings managed by young and elder farmers (Source: Eurostat 2011; authors' calculation)

