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AGRICULTURE & INNOVATION



EIP-AGRI Focus Group **Sustainable High Nature Value (HNV) farming**

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Front cover photograph: The CAEB MOUNTAINPRESS MP 550 compact round-baler (www.caebinternational.it) is a good example of an innovation in hay-making which is ideally suited for HNV grasslands in hilly and mountain areas.

1. Summary

The Focus Group brought together 20 experts from 15 EU Member States and a diverse range of backgrounds. They explored the potential for making effective use of the EIP-AGRI to improve the long-term viability of High Nature Value (HNV) farming systems and thereby stop/reverse the decline in HNV farmland currently observed. The initial scope of the Focus Group was intended to be - *how to improve the profitability of HNV farming without losing the HNV characteristics?* However, the Focus Group members pointed out this was a rather narrow perspective and actually part of a bigger question of - **how to improve the social and economic sustainability of HNV farming without losing the HNV characteristics?**

After clearly concluding that any discussion of socio-economic sustainability needs to be centered upon the **HNV farmer** and the **HNV farming household** (rather than the core principles underpinning the concept of "HNV farming"), the Focus Group (FG) identified five "acceptable" **development pathways**. **These pathways** have the potential to support more socially and economically sustainable HNV farming, whilst **not excessively** threatening the HNV characteristics of the farming system:

- Pathway 1: Networking and cooperation
- Pathway 2: Farm diversification
- Pathway 3: Increasing the selling price of HNV products and improving access to markets
- Pathway 4: Adopting new technologies
- Pathway 5: Increasing the physical output of the farm (within specific constraints)

They also identified a number of 'fail factors and 'key enabling conditions' that are likely to influence the adoption of these development pathways by individual HNV farmers in the context of their specific niche of agronomic and socio-economic circumstances. No single pathway, or combination of pathways, can be considered as a "perfect solution" for all HNV farming systems.

One important enabling condition (linked to a corresponding fail factor) is the need for more HNV specific research. The Focus Group identified **3 main areas of research needs**:

1. The need to develop **better understanding of HNV farming systems** – including data on the socio-economic characteristics and economic performance of individual HNV enterprises and farming systems; the motivation of HNV farmers; the social dynamics of HNV farming communities, and; the trends occurring in specific HNV farming systems.
2. The need to understand the **role of innovation in HNV farming systems** – including both technological and social innovation (including retro-innovation and the updating/modernisation of traditional knowledge/practices with more contemporary understanding and new ideas).
3. The need to develop **better technical and management solutions for HNV farming** – with particular emphasis upon agricultural machinery and technology; extensive grazing management and livestock issues; the development of low input arable systems; the maintenance restoration of habitats linked to traditional practices, and; appropriate education and extension systems for HNV farmers.

The importance of using effective 'animation' methods to develop integrated HNV farming projects was also stressed as an additional general need by the Focus Group. It is highly relevant in the context of making potential use of the EIP-AGRI – notably the establishment of EIP-AGRI Operational Groups.

2. Introduction

2.1 Context

High Nature Value (HNV) farming is a relatively new concept that has been developed since the early 1990s as a policy tool to describe those farming systems in Europe which are of greatest biodiversity value. Instead of focusing only upon the maintenance of rare or endangered species and habitats on protected sites, the HNV concept recognises that the conservation of biodiversity in the EU also depends to a great extent upon the **continuation of specific farming systems and practices across much wider areas of the countryside.**

See [Annex 1](#) for a basic introduction to the key terms and concepts associated with HNV farming and Oppermann *et al.* (2012) for a comprehensive review of HNV farming in Europe.

A key characteristic of all HNV farming systems is that they simultaneously produce two kinds of 'goods' which are completely different in their basic nature. On the one hand, they produce classical agricultural commodities which are 'market goods' (feed, food and fibre) sold for whatever market price is achievable. On the other hand, they contribute significantly to the creation and maintenance of landscapes and habitats.

During the last 10-15 years, considerable effort has therefore been put into discussing and resolving a range of policy issues related to building an effective public support system for HNV farming across the EU. This has been in response to strong arguments that wider society should offer some direct support to these HNV farming systems in recognition of:

- ▶ the environmental services they are providing;
- ▶ the fact that these environmental services are often not rewarded by the market, and;
- ▶ the unfortunate reality that because of their low productivity and profitability, many HNV farmers are struggling to maintain their traditional farming activities and way of life based solely upon the sale of their classical 'market goods'. Instead they are under pressure to either abandon their farming activities or (where feasible) to intensify – both options leading to the potential loss of valuable biodiversity, as well as the continued erosion of the social and economic fabric of rural areas.

Significant progress has been made with building appropriate policy support options for HNV farming. However, **overall the implementation of this support by Member States still seems (with some notable exceptions) to be failing to halt the decline in HNV farming systems and the loss of associated biodiversity** (see Keenleyside *et al.*, 2014).

2.2 Purpose and scope of the Focus Group

The EIP-AGRI Focus Group on 'How to make HNV farming more profitable without losing the HNV characteristics?' was launched by the European Commission in 2014 as part of the activities carried out in the framework of a new policy instrument for the 2014-2020 programme period - the [European Innovation Partnership for Agricultural Sustainability and Productivity](#) (EIP-AGRI).

The Focus Group (see [Annex 2](#)) brought together 20 experts from 15 EU Member States and a diverse range of backgrounds to explore the potential for making effective use of the EIP-AGRI to improve the long-term viability of HNV farming systems and thereby stop/reverse the decline in HNV farmland currently observed.

The initial scope of the Focus Group was intended to be - *how to improve the profitability of HNV farming without losing the HNV characteristics?* However, the Focus Group members pointed out this was a rather narrow perspective and actually part of a bigger question of - **how to improve the social and economic sustainability of HNV farming without losing the HNV characteristics?** It was agreed that the Focus Group should continue to work with this broader perspective.

It was stressed from the outset that the purpose of this Focus Group was **not** to inform on-going discussions about CAP reform and the design of EU or national/regional policy support mechanisms for HNV farming etc. Some Focus Group members argued that it was not realistic to entirely separate on-farm innovation from the policy and regulatory contexts as these are factors which can either facilitate or block innovation. Some consideration of the policy and regulatory context therefore continued as part of the Focus Group's work and this was compatible with the 'multi-level perspective' (see [Section 3.1](#)) that emerged from the Focus Group on the necessary transition towards more sustainable HNV farming.

3. Results of the Focus Group discussions – towards more sustainable HNV farming

3.1 Introduction

Focus Group members immediately highlighted that the day-to-day problems faced by HNV farmers occur at two different levels – the level of the single HNV farm and the level of the rural community in which the HNV farm is present. Regarding individual HNV farms, the Focus Group members identified the difference between profitability and income at the level of the farm business and the availability of cash at the level of the farm household. Across all HNV farming systems they identified the need for action and intervention at project level, research level, organisational level and policy level.

In other words, the Focus Group articulated a range of **multi-level perspectives** on the need to move HNV farming towards greater social and economic sustainability¹ - multi-level perspectives that reflected their understanding that ensuring the long-term sustainability of HNV farming is significantly more complex than simply 'making HNV farming more profitable'.

3.2 Key elements of sustainable HNV farming

In order to begin addressing the question of *how to improve the social and economic sustainability of HNV farming?*, the Focus Group first brainstormed relevant/key elements of sustainable HNV farming. The 'rich picture' that emerged is summarised in **Figure 1** on the next page. From this, it is clear that the Focus Group's understanding of sustainable HNV farming usefully moved forward from the important core principles underpinning the concept of 'HNV farming' (e.g. see **Annex 1**) to focus more upon the human and social-economic dimensions of the **HNV farmer and the HNV farming household**.

The Focus Group highlighted that a central issue in any discussion about the sustainability of HNV farming must be the **motivation** (including interests and priorities) of the farmer since this will greatly influence his/her behaviour. This includes day-to-day decisions regarding the management of farmland and livestock, marketing HNV products, choice of machinery, use of inputs, maintenance of non-farmed features etc. The orientation of a farmer's interests/priorities will ultimately determine whether the HNV characteristics of his/her farm are maintained or not – a fact clearly demonstrated by several farmers participating in the Focus Group (see case studies in **Annex 3**).

While farmers operating on HNV farmland are likely to have comparable 'styles', they are not homogenous. They have different attitudes and mentalities which greatly influence how their land is used and managed. The most common motivation for continuing to farm is obviously to derive some benefit. This benefit may be material (e.g. in the form of financial gain or the provision of food) or it may be immaterial (e.g. personal reputation or the preservation of family heritage) – or more likely than not, a complex mixture of both!

¹ Such multi-level perspectives are common in the study of 'transitions to sustainability' - a relatively new academic discipline which analyses the processes associated with social, economic and technical transition to sustainable development (see Darnhofer, 2014). For example, one member of the Focus Group participated in the recent FP7-funded FARM PATH project and explained that this new discipline had been usefully applied to 3 HNV farming case studies in France, Bulgaria and Portugal (see <http://www.farmpath.eu/HNVInformation> and Peneva *et al.*, 2014)

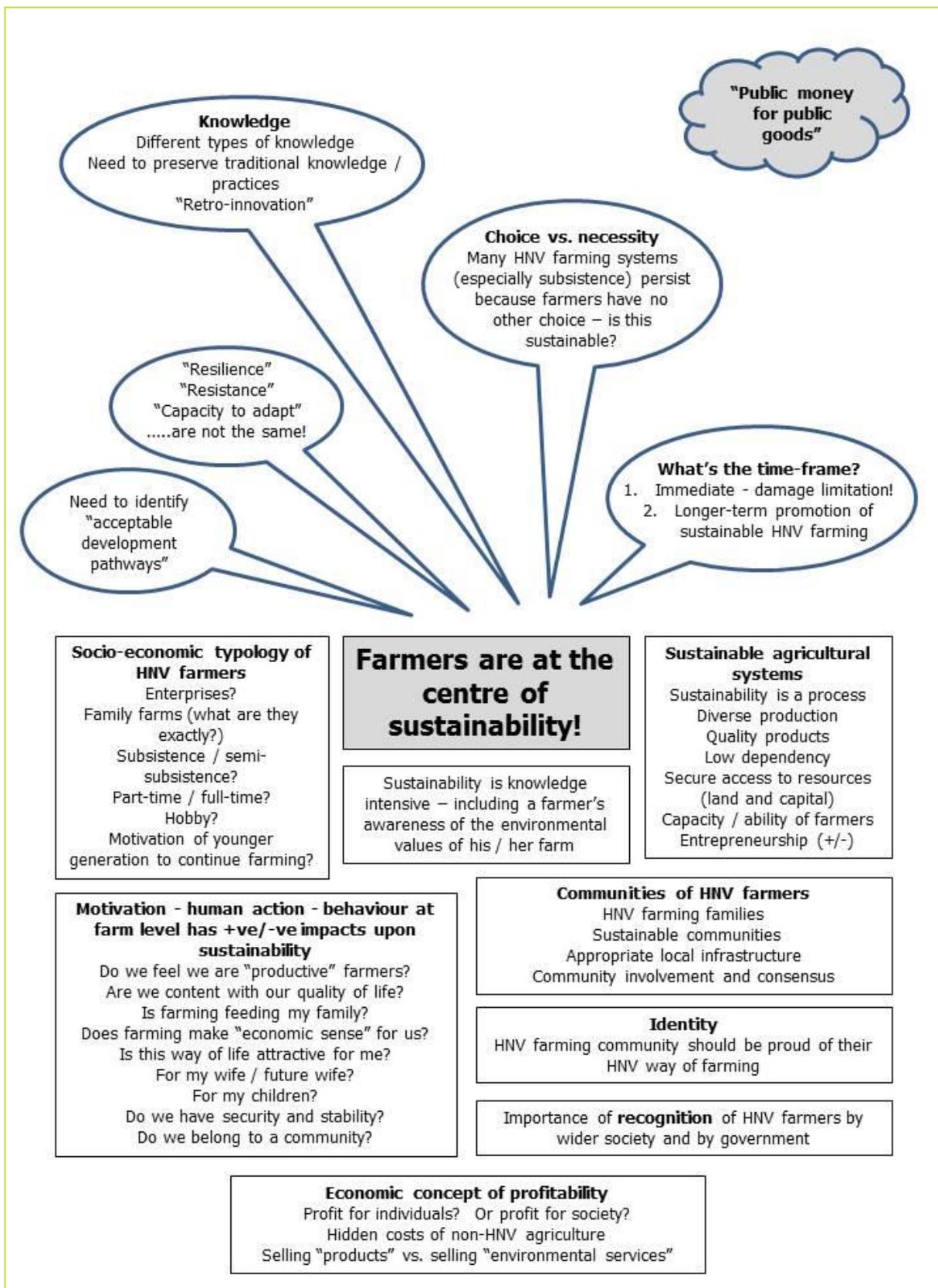


Figure 1: What are the relevant elements of `sustainable HNV farming`?

Whilst there is no doubt that the profitability of HNV farming is a key element of the sustainability of HNV farming (and there are many discussions to be had about the concept of 'profitability' and how it should be calculated), it **cannot be assumed** that HNV farmers are profit maximisers acting in accordance with the theories of classical agricultural economics. Instead they take a longer-term view that protects social and cultural sustainability (as well as economic gain) and encourages tenacity and resilience.

The Focus Group noted that the clear bottom-line for many HNV farmers and his/her family is **household income rather than farm income**. There needs to be 'cash on the family table' in order to carry on doing what they do and this 'cash on the table' can be derived from various sources, not just the farm. The dynamics of the **HNV household economy** (especially of multi-generational households) can therefore be very different from the economy of the HNV farm. Although, there should of course be some specific benefit to the HNV household economy from farming activities, otherwise there will be no motivation at all to sustain these activities and ultimately it will disappear. We cannot expect HNV farmers to cross-subsidise their farming activity from other income sources, at least not as a long-term strategy.

But any discussion of motivation and the household economy must take account of the **huge diversity of socio-economic circumstances** in which HNV farmers and their families live and work (e.g. see the case studies in **Annex 3** for a snapshot of this diversity). This diversity of circumstances needs to be better understood (e.g. through the development of a socio-economic typology of HNV farmers and their farm households), including the fact that it extends well-beyond the farm business itself. For example, many HNV farming families are resourced by off-farm employment and the importance of achieving an effective balance between off-farm and on-farm life must be recognised. For example, the availability of well-paid jobs outside of agriculture can pull people out of HNV farming including farmers, their families and farm workers (e.g. shepherds), whereas a lack of jobs can push people into HNV farming. In some cases, the complementarity or competition between HNV farming and outside jobs has a seasonal dimension. For example, working in a ski resort in wintertime suits summer pastoral activities, while working in summer tourism does not.

In many cases, small-holdings continue to provide the main source of income for many rural households and act as a **'social safety-net'** by contributing to family food security in times of economic shock or uncertainty, as well as the alleviation of poverty². In some cases, it is also observed that subsistence/semi-subsistence farming is deliberately chosen by many people due to a preference for the lifestyle, consumption of own food etc. This is an important behavioural pattern³ which has been largely overlooked in contemporary mainstream debates.

In all cases there are HNV farmers who continue to farm because of family tradition and a profound connection to the land.

² According to Davidova and Bailey (2014), "after measuring the contribution of unsold output, valued at market prices, to total household incomes, it appears that subsistence production has the potential to lift people out of the risk of poverty"

³ This interesting perspective on the motivation for subsistence farming has been raised by several authors in recent years, including Davidova (2011), as well as the classical literature on peasant studies (Chayanov, Shanin etc.) which remains very relevant in today's conditions

Based on this discussion, the following key factors for improving the social and economic sustainability of HNV farming were identified by the Focus Group:

- ▶ **Understanding the motivation (interests and priorities) of HNV farmers** - a complex, but fundamentally important issue in the context of promoting more sustainable HNV farming.
- ▶ **Basic issues of farm level sustainability** – many factors contribute to the economic viability of a farm business including access to land, diversity of production, quality products, entrepreneurship, appropriate knowledge and the technical/business skills of the farmer.
- ▶ **Different types of knowledge** – sustainable agriculture is knowledge intensive. Sustainable HNV farming will inevitably require a broad knowledge base. Development of this knowledge base will involve the need both to preserve traditional knowledge/practices, as well as update them with more contemporary understanding and new ideas.
- ▶ **Communities of HNV farmers** – HNV farmers rarely live or operate in complete isolation. They have families and are members of communities, they have a full range of needs for education, medical and social services, retail facilities, infrastructure, diversity of life opportunities etc. that are commonly associated with any rural community.
- ▶ **Identity and recognition** – HNV farmers (and their families and communities) are (and should be!) proud of their way of farming. The identity and pride of HNV farmers should be reinforced by wider society and by governments – this is linked to the motivation of HNV farmers as discussed above.

Overall, the Focus Group therefore identified that there are **numerous factors** operating as key drivers for enhancing the sustainability of HNV farming – and that **a focus upon the single factor of farm profitability is indeed too narrow**. Furthermore, these multiple factors are inter-connected and inter-dependent. If one of these factors is not favourable, then all efforts to improve the social and economic sustainability of HNV farming can fail.

3.3 Acceptable development pathways for sustainable HNV farming

The Focus Group stressed that HNV farmers are very diverse and operate in a broad range of different agronomic, economic, social and environmental contexts within which various potential opportunities and pathways for development and transition to greater social and economic sustainability are likely to exist.

It is frequently assumed that HNV farming systems are not viable (i.e. they cannot increase their household income) because of their low physical productivity. However, during their discussions – including the presentation of case studies and preparation of mini-papers – the Focus Group identified that there is scope for increasing household income. They found five 'acceptable' **development pathways** that have the potential to support more socially and economically sustainable HNV farming, whilst **not excessively** threatening the HNV characteristics of the farming system.

None of the pathways identified are unique to HNV farming. They are all common development pathways that are pursued by many different types of farmers and which have also been actively promoted by the EU rural development policy for many years. However, the relevance and application these pathways to the specific 'niches' of individual HNV farming households and communities will obviously **vary greatly**, as will the interaction between pathways and the potential impact on the characteristic HNV habitats and species. What works for one HNV farming system in one 'niche' may not work for the same HNV farming system in another because of differences in agronomic, environmental and socio-economic context.

The development pathways are listed below in order of their relevance to the **16 diverse case studies** presented by the Focus Group members (see **Annex 3**). All of the development pathways were relevant and the majority of the case studies actually combined multiple pathways.

Of course, no pathway or combination of pathways can be considered as a 'perfect solution' for all HNV farming systems. However, there is huge potential for innovation and experimentation, some of which could, for example, be conducted in the framework of EIP-AGRI Operational Groups (see **Section 4.3**).

Development Pathway 1: Networking and cooperation

See **Annex 3** – this pathway was found to be relevant to **all** case studies with the exception of 3, 8 and 10. Additional information is also available in the mini-papers.

The identification of this development pathway arose from the Focus Group highlighting the need for HNV farmers to engage fully and more effectively in **working together** to develop solutions to the challenges and problems they face.

'Networking and cooperation' is a broad title for this development pathway and clearly covers many potential actions and initiatives at farm, household and community level. Actions ranging from informal, *ad hoc* collaboration between individual farmers, through various forms of networking, to formally-constituted partnerships with legally defined structures and mandates. All of which might exist for a broad range of purposes, including coordinating access to information, sharing skills, experience and resources (including addressing workforce issues), buying inputs, branding, processing and marketing products, cooperation for nature stewardship⁴, lobbying national/regional authorities etc.

Despite this diversity, the common characteristics of all these potential actions and initiatives is the **establishment and building of solidarity** (i.e. acting together in pursuit of a common objective for mutual support and/or benefit). This must be achieved within local HNV farming communities, as well as more broadly between farmers and partners such as citizens and professionals/agencies with an interest in HNV sustainability.

The successful development of cooperation amongst HNV farmers depends upon many sociological factors. This includes their committed participation (meaningful engagement, personal development and the generation of motivation) and effective realisation of the importance of working together. Without the 'glue' of common goals and a shared vision, it is very difficult to achieve solidarity or effective collective action.

This can be a big challenge and some form of support (advice and capacity-building actions) by other relevant stakeholders (e.g. advisers, local authorities, NGOs, etc.) is often needed, in many cases this also includes the presence of a person acting as a 'catalyst' and/or facilitator⁵. The Focus Group members all agreed that such external support can be **essential** for promoting cooperation, as well as overcoming the various fail factors that limit the development of HNV farms (see **Section 3.4** below).

⁴ For further information on land and nature stewardship and its relation to farming, see Case Study 13 in Annex 3 and Sabaté *et al.* (2013).

⁵ Note that a catalyst and animator do not have the same function

Development Pathway 2: Farm diversification

See [Annex 3](#) – this pathway was found to be relevant to case studies 1, 2, 5, 6, 7, 8, 10, 11, 12, 13, 14 and 16. Additional information is also available in the mini-papers.

The diversification of economic activities is a common development pathway for many farms and can be either within the scope of existing farm activities (e.g. setting-up a farm shop or on-farm processing facility), or involving the introduction of completely new enterprises, products or services on the farm (e.g. farmhouse accommodation, business/small-scale industrial units, educational facilities, leisure and sporting activities, renewable energy production etc.).

Various forms of rural tourism, including ecotourism, are a popular option for HNV farmers as a way of 'selling' the attractive landscapes and good quality food produced by their farming systems. Some investment is commonly required at farm level, so access to capital is a key issue. Some additional skills such as foreign language ability and basic hospitality management can also be very useful within the farm household. Rural tourism is most successful when farms are easily accessible and adjacent to popular tourism destinations/routes.

Again, this pathway has good potential for increasing farm household income, but only where the circumstances are favourable. There are often limits to the alternative economic activities that can be successfully implemented on HNV farms, especially in remote marginal areas. Furthermore, it cannot be assumed that HNV farmers have a preference, or adeptness, for farm diversification since activities such as processing or tourism service provision are entirely different from farming.

Also, beware that some forms of diversification can be a threat to valuable habitats and species, as well as to cultural landscapes and traditional architecture.

A particular form of diversification that is very relevant for HNV farming is the delivery of ecosystem services. Examples include biodiversity and landscape conservation, prevention of wild fires through grazing, and watershed management. These may be rewarded privately, for example by water companies (several examples exist) or more often by public policy measures. Many forms of HNV farming can only achieve long-term economic sustainability if they are rewarded for the special public services that they supply, and that differentiate them from more resource-intensive agricultural systems.

Development Pathway 3: Increasing the selling price of HNV products and improving access to markets

See [Annex 3](#) – this pathway was found to be relevant to case studies 1, 2, 4, 5, 6, 8, 11, 12, 13 and 14. Additional information is also available in the mini-papers.

Increasing the selling price is a promising strategy for HNV products. Assuming that basic hygiene standards are met, most HNV products have a good intrinsic quality and there is generally a good demand for them, especially when they are niche and traditional products with a strong established market (e.g. cheese, yoghurts, processed meats, packed fruits etc.).

However, this is not a one-size-fits-all strategy. New markets and new marketing channels frequently have to be found developed. It is necessary to differentiate HNV products on the market and there is often strong competition from other 'natural' products. Consumers need to be found that are interested in, and loyal to, a HNV brand. Furthermore, product branding, packaging, advertising and distribution can incur many additional costs for the farm business.

Shortening the supply chain via direct marketing (e.g. roadside stalls, farm shops and farmers' markets) can be profitable, but requires easy access to consumers (e.g. where farms are close to cities, have good roads or are adjacent to touristic places), whilst many HNV farms are characterised by their remoteness. Direct marketing also requires skill, experience and other forms of expertise which many HNV farmers simply do not have the time to develop

Furthermore, the majority of HNV farming systems produce commodity products (e.g. beef, sheep and milk) which cannot be sold directly to the public without significant additional investment in processing and packaging. Many HNV farmers sell their cattle and sheep as 'store animals' (e.g. lambs for fattening) simply because their grazing land is not good enough for 'finishing' livestock ready for slaughter.

The internet offers great potential for developing new markets via online sales provided that the farmer is familiar with the necessary technology. Internet access can still be an issue in some more marginal areas, but is improving all the time.

This pathway has some potential for increasing farm household income, but only under favourable socio-economic circumstances and with flexible and innovative regulatory frameworks that allow for such marketing systems. Also beware that a successful increase in selling prices can encourage farmers to maximise output through specialisation and intensification. This is a real risk where there is no awareness of/feedback on the potential loss of HNV characteristic biodiversity and landscapes which is the unique selling point of the farm produce.

Development Pathway 4: Adopting new technologies

See [Annex 3](#) – this pathway was found to be relevant to case studies 1, 6, 7, 9 and 10. Additional information is also available in the mini-papers.

HNV farming is often practiced by small farmers in the more marginal areas of rural Europe where productivity is most constrained by factors such as poor soils, steep slopes, high altitude, low rainfall, rocky outcrops, etc. These farmers often use older technologies which contribute to: i) inefficient and poor quality work, and; ii) a negative image (and self-perception) of HNV farmers in rural society. However, there is a broad range of newer technologies available which are very relevant to HNV farming, ranging from various ICT applications (mobile telephones, computers and the internet), through innovative food processing facilities (e.g. mobile cheese factories), to small-scale farm machinery. For example, there are many small-scale and very effective hand-held, motorised mowers, rakes and baling machines now available that can greatly reduce the labour requirements for hay-making, whilst significantly improving forage quality. These machines are modern, innovative, efficient and biodiversity-friendly, also, they are not too expensive or complicated. The adoption of such new technologies can greatly enhance the productivity and profitability of HNV farming, whilst also contributing to the better self-esteem and confidence of HNV farmers.

Of course, the encouragement of HNV farmers to adopt new technologies involves more than just the availability of the technology. Relevant experience and practical knowledge in operating and maintaining the equipment must also be disseminated via farmer-to-farmer transfer of knowledge (including farmer networks and demonstration projects); the organisation of exhibitions and trade shows, and various education and training activities.

Development Pathway 5: Increasing the physical output of the farm (within specific constraints)

See [Annex 3](#) – this pathway was found to be relevant to case studies 6, 7 and 10. Additional information is also available in the mini-papers.

The Focus Group identified that there are technical strategies available to increase the physical output of a HNV farm system without compromising its low-input characteristics and biodiversity values. These strategies include:

- ▶ **Better access to semi-natural land for grazing (quantity and quality)** - a common challenge for HNV farmers is how expand their extensive grazing systems by increasing the number of animals. If the semi-natural characteristics of the grazed land are to be maintained without intensification of livestock unit per hectare, then access to more land is needed. This is a viable strategy for many HNV farmers, but commonly raises a number of issues:
 - a) Legal access to common land, publically-owned land and/or to abandoned private land
 - b) Competition with non-HNV farmers
 - c) CAP eligibility rules for graziers on semi-natural pastures and rangelands, including non-herbaceous pastures and those with woody vegetation
 - d) Potential fragmentation of grazing land due to scattered parcels under private ownership etc.
 - e) 'Infrastructure' for gaining access to and grazing additional land e.g. roads/access, fencing, water access, housing for shepherds, traditional transhumance routes etc.

- ▶ **Making more efficient use of semi-natural resources** - semi-natural landscapes offer a wide range of fodder resources. Using these resources efficiently requires different skills to those used in more intensive grazing systems. Knowledge, experience and skills exist for making more efficient and sustainable use of semi-natural vegetation through the adaptation of grazing systems (i.e. no overgrazing), use of complementary feeds, control of scrub⁶ - as well as the 'education' of grazing animals to diversify their grazing preferences, increase their food intake, improve their health and increase their productivity⁷.

- ▶ **Complementary use of HNV and semi-intensive land** – many HNV farms have 'partial HNV systems' where the farming business utilises some low-intensity HNV farmland alongside more intensively-managed and/or improved agricultural land (see [Annex 1](#)). Hay or silage produced on the more intensively managed land supports the livestock when grazing on the HNV farmland is restricted due to cold/wet winters or dry summers (depending on the conditions).

The economic viability of many HNV farming systems depends upon the availability of such 'intensifiable' land and there is often potential to increase the overall productivity of the system by optimising the balance between the use of improved (intensive) and unimproved (extensive) farmland. In some cases this includes the better integration of grazing livestock into cropping systems through the wise use of manure, post-harvest grazing, introduction of forage legumes etc.

⁶ See the Burren Life Best Practice Guides here: <http://www.burrenlife.com/best-practice-guides.php>

⁷ See Meuret and Provenza (2014) for a description of the shepherding know-how and practices that can increase the appetite of grazing animals and motivate them to graze more effectively on a diverse range of semi-natural vegetation

However, great care must be taken to ensure that the system remains balanced and the HNV characteristics are maintained. The experience of the Focus Group suggests that both the intensification **and** abandonment of semi-natural pastureland can be a risk in such systems.

3.4 Fail factors that limit the potential development pathways

Natural constraints upon productivity and the potential for intensification are not the only factors limiting the social and economic sustainability of HNV farming. A number of other factors may limit/constrain the capacity of local farmers to take advantage of the potential development pathways identified in [Section 3.3](#) above.

In the context of this Focus Group, these factors were referred to as '**fail factors**' that limit the possibilities for innovative action and therefore need to be overcome. During their discussions, the Focus Group identified 9 broad clusters of fail factors:

- ▶ Lack of 'catalysts'/animators
- ▶ Lack of effective knowledge transfer
- ▶ Limited access to finance
- ▶ Limited opportunities for marketing produce
- ▶ Lack of understanding
- ▶ Lack of consumer awareness
- ▶ Risk aversion
- ▶ Identity and confidence
- ▶ Poor governance and disempowerment of HNV farmers
- ▶ Lack of HNV-specific research

These clusters of fail factors are elaborated in more detail in [Annex 4](#).

3.5 Key enabling conditions for sustainable HNV farming

Within the 'niche' of their own farming system and its specific socio-economic context, individual farmers will make their own decisions regarding the development pathways that they may – or may not – pursue. These decisions and subsequent actions can be promoted/supported/facilitated by certain 'key enabling conditions'. The Focus Group identified three **key enabling conditions** (see below) for sustainable HNV farming linked to better governance and more appropriate governmental support. These key enabling conditions were the subject of three mini-papers prepared by the Focus Group members.

Enabling Condition 1: Better governance and empowerment of HNV farmers

A defining characteristic of the Focus Group's discussions was the shift from the core concepts of HNV farming (see **Annex 1**) to focus upon the **farmer and farming household** as the basis of more sustainable HNV farming. Various acceptable development pathways flowed from this perspective, as did a number of obvious fail factors – including two closely inter-related factors: i) identity and confidence of HNV farmers, and ii) poor governance and disempowerment of HNV farmers

The Focus Group identified an urgent need for better social/political recognition of HNV farming, better representation of HNV farmers' interests and more favourable and fair implementation/interpretation of policies. These are all aspects of the need for better governance of HNV farming and there is considerable scope for **stronger, more representative and more innovative governance**. Specific opportunities identified by the Focus Group included:

- ▶ Increased dialogue between HNV farmers and decision-makers in building a new vision for the future of HNV farming. This may need to be initiated by the decision-makers;
- ▶ Increasing awareness and understanding of HNV farming amongst the national and regional authorities responsible for programming EU funds leading to innovation in their design and implementation of policies and the creation of more favourable conditions for HNV farming;
- ▶ More direct engagement of HNV farmers in the development of local farmland management schemes, including greater emphasis upon using collective or group approaches to facilitate the participation of 'marginal' farms in the schemes.

Linked to governance, the **empowerment of HNV farmers** also emerged as a major cross-cutting theme in Focus Group discussions. This included the creation of conditions where HNV farmers (working jointly with others) could overcome a lack of motivation, confidence and self-belief to actively engage with (and create) new cultures of knowledge, cooperation and entrepreneurship that are effective in enhancing HNV sustainability. Education, extension and farm advisory systems should be designed and implemented to promote this goal.

Further discussion of this theme is well beyond the scope of this Final Report and readers are recommended to read the related mini-paper⁸.

⁸ See mini-paper on *Empowering farmers operating on High Nature Value farmland: a solutions-orientated mini-paper*

Enabling Condition 2: A more favourable regulatory framework

Farming in the EU operates within a wide-ranging regulatory framework. This framework is dominated by the income support and rural development measures of the Common Agricultural Policy (CAP), but also includes numerous regulations relating to agriculture, food hygiene and the environment.

Some elements of the regulatory framework are restrictive, whilst other elements are designed to incentivise specific actions, including payments for ecosystem services. The combined effect of these different elements of the regulatory framework can have an important influence on the development and economic viability/sustainability of individual HNV farms⁹. For some types of HNV farms, the way in which the regulatory framework is implemented provides considerable economic support (income support, investment aid). Whereas some other types of farms have access to much less support. Similarly, the regulatory framework can facilitate farm development in some cases and seriously hinder development (regulatory barriers) in others.

There is considerable potential for creating a more favourable, fair and equally applied regulatory framework for HNV farmers¹⁰. At the very least, it is essential to identify and avoid the negative side-effects of the existing regulatory framework.

However, it is also important to note that the specific problems created for HNV farming by the EU regulatory framework are **not necessarily** the measures and regulations themselves, but the way that national and regional authorities in different Member States choose to interpret and implement them. This is a major issue and clearly highlights the need for:

- ▶ Greater political recognition and understanding of HNV farming amongst national/regional authorities (see Enabling Condition 1 above);
- ▶ A co-ordinated communication and information campaign to highlight the negative impacts of the regulatory framework upon HNV farming, including the combined impact 'at the farm gate' of different regulations;
- ▶ Better representation of the interests of HNV farmers, including facilitating their greater (direct) engagement with policy-making and implementation processes at national/regional level;
- ▶ Greater flexibility at European level for national/regional authorities to seek justified derogations to EU rules that are problematic for HNV farmers.

Enabling Condition 3: Payments for ecosystem services

One of the most promising opportunities for paying HNV farmers for the ecosystem services they deliver is via public support under the EU Common Agricultural Policy (CAP) and associated schemes¹¹.

The integration of environmental objectives and measures into the CAP has been a long and incremental process, but some provision for paying farmers for ecosystems services is now included within the agri-environment-climate payment schemes defined by Article 28 of the current Rural Development Regulation No. 1305/2013. Guidance issued by the European Commission¹² makes it clear that Article 28 agri-environment-

⁹ See the mini-paper on *Creating a more favourable regulatory framework for HNV farming*

¹⁰ See section 12.3 of Keenleyside *et al.* (2014) for an overview of the specific opportunities for improving the safeguards and support for HNV farming in 2014-2020 that are offered by the revised CAP

¹¹ See the mini-paper on *Payments and Rewards for Ecosystem Services*

¹² See the DG AGRI Working Document (May 2014) entitled *Technical Elements of the Agri-Environment-Climate measure in the Programming Period 2014-2020*

climate measures **can be used to pay farmers for defined biodiversity or ecosystem results**¹³, instead of paying them for pre-defined management actions as has been the case in most agri-environment programmes until now.

The Focus Group agreed that more results-based agri-environment payment schemes now need to be developed and implemented by national and regional authorities in the Member States¹⁴. In the specific context of HNV farming, schemes should include those that: a) if appropriate, compensate the opportunity costs of *not* changing a HNV system that is already delivering a high level of biodiversity/ecosystem services, and; b) permit HNV farmers to apply their skills and knowledge to adjust specific management practices on their farms to deliver the desired biodiversity results/ecosystem services.

¹³ For more information and examples of result-based payments to HNV farmers see:

http://ec.europa.eu/environment/nature/rbaps/index_en.htm

¹⁴ Pilot results-based agri-environment schemes are currently being supported by the European Commission in Ireland and Spain. See the website of the European Forum for Nature Conservation and Pastoralism (EFNCP) for more information:

<http://www.efncp.org/policy/rbaps/>

4. Focus Group recommendations – setting an agenda for more sustainable HNV farming

4.1 Research needs

Much of the research work on HNV farming in recent years has been undertaken to contribute to the evidence base informing the design of EU policies for HNV farming, for example see ALTERRA (2014) and Keenleyside *et al.* (2014). However, the research needs of HNV farming are clearly much broader than this and the Focus Group identified 3 main areas of needs:

1. The need to develop better understanding of HNV farming systems

The environmental importance of HNV farming has been recognised for some time and some useful studies have been undertaken on the relationship between traditional farm management practices and farmland biodiversity. Nonetheless, further work on the factors influencing the **ecological performance** of HNV farms – and HNV landscapes – is needed. What are the thresholds for adapting the management of individual HNV farms without impacting negatively upon biodiversity? How has the successful development of HNV farming businesses been integrated with active biodiversity conservation? Are there acceptable trade-offs between economic and ecological performance at farm and landscape level?

However, these questions should not be considered from a static point of view. Rather than delineating a threshold beyond which one farming system loses its HNV attribute, the issue is to better understand the ecological and socio-technical processes involved. For example, indicators are needed at different scales (from landscape structure to individual species) to define the ecological state of HNV farming and to allow monitoring. The **ecological requirements** of species which are typical/characteristic of the HNV systems also need to be identified, as does the degree to which these can be met whilst developing the farm.

Likewise, little research has been undertaken on whether the **ecological performance** of given HNV systems can be improved and at which costs. An implicit assumption in many projects is that HNV systems are managed at or near the ecological optimum. Increasing the biodiversity output of HNV systems could also be valid option to increase the economic performance in the frame of a pseudo-market for biodiversity (e.g. a results-based agri-environment payment scheme or a biodiversity 'off-setting' scheme).

In contrast to the ecological aspects of HNV systems, very little is known about socio-economic characteristics and context. There is anecdotal evidence or some data from case studies, but a sound statistical base (e.g. via FADN) is lacking. The Focus Group identified that much better understanding needs to be developed in 5 key areas of interest and relevance:

- a) The **socio-economic characteristics** of HNV farming, notably the structure, characteristics and dynamics of HNV farming households e.g. part/full-time, degree of subsistence/market integration, use of family labour, sources of farm and non-farm income, access to land and capital, tax and social security status etc. A basic typology of HNV farming systems that encompassed not only their agro-ecological characteristics, but also their socio-economic context would be very useful;
- b) The **economic performance** of individual HNV enterprises and farming systems, including a) the collection and analysis of relevant farm accountancy data and b) the calculation of key performance indicators;
- c) The **motivation (interests and priorities)** of HNV farmers and their potential successors;

- d) The **social dynamics** of HNV farming communities, including demographic trends, patterns of migration, prevalence of new entrants and fate of young farmers;
- e) The **trends** occurring in specific HNV farming systems – big changes are taking place and some systems are changing more than others. Reliable information is needed, but there is no robust data available at EU level.

2. The need to understand the role of innovation in HNV farming systems

The role of innovation in agriculture and rural development has received increasing attention in recent years. Innovation is widely acknowledged as a potential engine of sustainable rural development, underpinning agricultural productivity and food security whilst playing a vital role in creating jobs, generating income and stimulating and diversifying local economies.

The Focus Group identified clear potential for innovation in all 5 of the acceptable development pathways identified in [Section 3.3](#). This included for example the use of new types of machinery, adaptation of grazing systems, development of new products and appropriate small-scale food processing facilities, innovative marketing, new business models, diversification into non-agricultural activities etc.¹⁵

However, the Focus Group also stressed that deeper consideration of the **specific role** of innovation in enhancing the socio-economic sustainability of HNV farming would be valuable – this role may be quite different from the role of innovation in intensive farming. For example, HNV farming is based on traditional principles with a wealth of local know-how and good practices (which are often underrated). There is huge scope for re-interpreting, enhancing and blending the traditional principles and practices of HNV farming with contemporary knowledge, new perspectives and novel technologies to develop new and cost-effective ways to combine productive agriculture with nature conservation objectives and evolving social preferences.

The concept of **retro-innovation** (i.e. the updating/modernisation of traditional knowledge/practices with more contemporary understanding and new ideas) is increasingly acknowledged and accepted in many business sectors as a specific strategy for keeping well-established systems updated according to new conditions - and it is **highly relevant** to enhancing the socio-economic sustainability of HNV farming.

Focus Group members stressed that research on the role of innovation in HNV farming should consider the multiple dimensions of innovation. For example, in addition to technological innovation there are existing examples of social innovation in HNV farming and many other possibilities to develop this further. Existing initiatives that have effectively responded to the challenge of sustaining HNV systems should be systematically reviewed, catalogued and made available for dissemination/multiplication. The importance of using participatory research methods was also highlighted, meaning involving farmers at all stages of the research process and enabling direct transfer of the research findings into practice.

¹⁵ The broad scope of potential innovation identified by the Focus Group is in line with the definition of innovation from OECD and Eurostat (2005) that is used by the EIP-AGRI, namely “*the implementation of a new or significantly improved product (good or service) or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations*”

<http://www.oecd.org/sti/inno/oslomanualguidelinesforcollectingandinterpretinginnovationdata3rdedition.htm>

3. The need to develop better technical and management solutions for HNV farming

Compared to high intensity farming systems, relatively little research has been undertaken on improving the performance of the low intensity farming systems that prevail in HNV farming. Certainly very little attention has been given to the fostering of innovation as a process to enhance their economic, social and environmental sustainability.

The Focus Group identified various research needs to support the development of better technical solutions for HNV farming. These are discussed in more detail in the mini-papers, but may be summarised as follows:

Agricultural machinery and technology	<ul style="list-style-type: none"> ▶ Review of existing agricultural machinery and technology of relevance to HNV farming ▶ Identify the diverse range of needs for small agricultural machinery and technology in different regions (does the equipment/technology already exist, or does it need to be developed) ▶ Development of criteria/indicators to assess the impact on HNV biodiversity and landscapes of existing and new agricultural machinery and technology ▶ Understanding the role and effectiveness of ICT in the practical management of HNV farming and in improving employment opportunities for farm households ▶ Improvement of mobile processing units for meat, dairy, fruit and vegetable processing
Grassland and livestock issues	<ul style="list-style-type: none"> ▶ On-going development of hay and silage-making equipment suited to the local conditions in different HNV farming systems (e.g. the use of big bale wrapped silage as an alternative for maintaining hay meadows in wetter climates) ▶ Remote sensing systems for improving the management of grazing animals (e.g. the detection and deterrence of large carnivores) ▶ Making more effective use of semi-natural vegetation through the adaptation of low-intensity grazing systems and use of complementary feeds ▶ Management of unwanted species in HNV grassland meadows and pastures ▶ Research into traditional herding/shepherd skills, including the diversification of livestock grazing preferences etc. and the impact of these on habitats ▶ Managing livestock at 'landscape level' in HNV farming ▶ Improving the genetic potential and animal health (e.g. improving survival of calves) of livestock breeds specifically suited to HNV farming
Development of low input arable systems	<ul style="list-style-type: none"> ▶ Strategies and agronomic practices for the introduction of low input arable cropping into HNV farming systems ▶ Optimising nutrient flows in the mixed HNV farming system ▶ Functional biodiversity in low input arable cropping
Education, extension, engagement and stewardship	<ul style="list-style-type: none"> ▶ Research on how educational and advisory systems can better meet the needs of HNV farmers for action and cooperation (including the fostering of innovation) ▶ Assessing overall sustainability of projects and partnerships: what are the meaningful indicators, and the most effective monitoring and self-evaluation modes and tools? ▶ Efficiency of various modes of ICT use for strengthening HNV education, extension and engagement

4.2 Other needs

In addition to the three broad research needs above, the Focus Group identified 3 other general needs related to the promotion of innovation in HNV farming:

1. The need to disseminate experience and practical knowledge

The dissemination of experience and knowledge is clearly a key tool for promoting innovation and the Focus Group stressed the importance of using all available conventional and non-conventional approaches to disseminate experience and practical knowledge of relevance to HNV farmers. Success stories, but also failures, should be discussed. Target groups should include farmers, but also policy makers, media and citizens, researchers etc.

2. The need for networking and co-operation at all levels

Various forms of networks are useful to facilitate the transfer and exchange of information, experience, good practice etc. so that HNV farmers can a) make better informed decisions about day-to-day management issues, and b) use the experiences (successes and failures) of HNV farmers in other localities/regions to introduce technical and management solutions for the development of their own farm system/business.

Furthermore, such innovation does not take place in isolation. At the farm level, innovation commonly takes place through the interaction of various players, including the farmer, suppliers, traders, advisers, researchers etc. Networks (including the use of social media and 'virtual networks') also have a key role to play by bringing these people together in cooperation and partnership¹⁶. At a higher level, there is also a clear need for networks between policy-makers, researchers and research institutions, key regional actors (e.g. national and international NGOs) and relevant projects, LIFE+, Interreg and EIP-AGRI Operational Groups.

3. The need for integrated HNV farming projects with effective animation

The majority of the case studies collected and presented by the Focus Group members (see [Annex 3](#)) involved some form of integrated project following one, or often more, clearly defined development pathways (see [Section 3.3](#)). Most of these small-scale integrated projects were very successful and involved some form of action/project initiated by an organisation or individual acting as a local animator or 'catalyser'. Indeed, in some cases the presence of a 'catalyser' was clearly the most important critical success factor. However, the 'reaction' induced by this catalyser needs to be sustained on the ground, ideally through the presence and support of a dedicated animator with appropriate skills and resources.

The Focus Group explored together their experiences of integrated HNV farming projects and developed a check-list of potential actions for animating a HNV area (see [Annex 5](#)).

In line with **point 2** above, the Focus Group identified that additional value could be added to such small-scale integrated projects by networking them at EU-level. Many issues apply in a similar way in different regions and projects could be connected in order to take advantage of complementary actions, sharing of experiences and best practices, and other potential synergies. Opportunities for cooperation and networking exist in EU rural (e.g. transnational cooperation under LEADER) and regional (e.g. Interreg) development policies.

¹⁶ See RASE (2014) for a description of the establishment, function and benefits of local farmer networks in three upland HNV areas in England (Cumbria, Yorkshire Dales and Exmoor)

4.3 Making use of the available EIP-AGRI tools

The main tools available under the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI) are:

- ▶ EIP-AGRI Operational Groups under national/regional rural development programmes (RDPs);
- ▶ Thematic Networks and Multi-actor Research Projects under Horizon 2020 and;
- ▶ The EIP-AGRI Network.

Click on the above links or see the EIP-AGRI website for further information: www.eip-agri.eu

Horizon 2020

Horizon 2020 is a big programme with great potential to cover many issues in different countries and to achieve wide-ranging synergies. However, the preparation and submission of proposals can be challenging with many issues to consider, including administrative efforts and financial risks.

The Focus Group identified the following broad themes for supporting HNV farming under Horizon 2020:

1. Thematic Network on:
 - ▶ HNV farming research and teaching
 - ▶ Creating a favourable regulatory framework (a 'policy innovation laboratory')
 - ▶ Knowledge exchange on specific topics
 - ▶ Good practices (including trans-national)
 - ▶ Animation
2. Multi-actor research projects (Horizon 2020) to address the following issues:
 - ▶ Identification and characterisation of HNV farming
 - ▶ Economic performance data of HNV farming
 - ▶ Exploration and valorisation of ethnographic values
 - ▶ Biological data on HNV farmland habitats
 - ▶ Testing new technologies for HNV farming
 - ▶ Market research for HNV products

Potential EIP-AGRI Operational Groups

The time-frame for the setting-up of EIP-AGRI Operational Groups will vary according to the approval/implementation of individual Rural Development Programmes. A lot of relevant information on the practical aspects of setting-up Operational Groups is already available on the EIP-AGRI website: www.eip-agri.eu

The Focus Group did not discuss potential topics for EIP-AGRI Operational Groups in great detail since many issues had been covered in previous discussions (see preceding sections).

It was noted that farmer-led research in an EIP-AGRI Operational Group could address many (if not all) of the specific development pathways and fail factors identified by the Focus Group, as well as play a role developing any HNV specific research on 'better technical and management solutions'. Operational Groups can also benefit from – and contribute to – the HNV specific networking and animation. For example, an EIP-AGRI Operational Group that would like to focus on increased price and increased output could benefit from: a) study on market

differentiation of HNV products, b) innovative technology to increase output, c) involvement of nature conservation people to ensure that HNV characteristics are maintained and not damaged, d) animation and networking by involving a local NGO, and e) piloting payment schemes for ecosystem services.

As with the development of integrated HNV farming projects ([Section 4.2](#) above), effective animation/facilitation can be very important for the establishment of EIP-AGRI Operational Groups.

It can help to:

- ▶ capture grassroots ideas from farmers and others;
- ▶ ii) bring the right people around the potential Operational Group project objectives and help partners to connect to each other;
- ▶ iii) develop the concrete projects and
- ▶ iv) identify available funding to start-up the Operational Group project.

4.4 Dissemination of Focus Group results

Potential steps for dissemination of the results from the HNV Focus Group at EU, national and/or local level are listed in [Annex 6](#).

5. Conclusions

HNV farming is in clear need of transition to a state of increased social and economic viability in order to ensure that it continues to deliver important biodiversity benefits through the maintenance of specific farming systems and management practices. The Focus Group – with its great diversity of perspective and depth of experience – took a very positive view of the potential for promoting and supporting this transition through the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI).

By pooling their knowledge, the members of the Focus Group brought together numerous inspiring case studies of existing success stories of innovative actions for integrating socio-economic viability with biodiversity conservation. This includes many practical down-to-earth experiences which have not to-date been collated, evaluated and disseminated. Whilst the existence of these success stories was very encouraging, the collective experience of the Focus Group highlighted the **marginality** of HNV farming in conventional research activities, as well as contemporary agricultural knowledge and innovation systems.

Huge gaps exist in our understanding of HNV farming systems, especially regarding their socio-economic characteristics and context. Compared to more modern, high intensity farming systems, relatively little research has been undertaken on improving the agro-economic performance of low intensity farming systems and certainly very little attention has been given to the fostering of innovation as a process to enhance their productivity, profitability and sustainability.

In this respect, one of the most exciting outcomes of the Focus Group was the successful proposal for a Horizon 2020 Thematic Network that grew out of the second meeting of the Focus Group in October 2014. The *High Nature Value Farming: Learning, Innovation and Knowledge* (HNV LINK) network project was approved in December 2015 (as this report was finalised) with an overall budget for 3 years of EUR 2.2 million. The 13-partner consortium running the network will focus on innovations that “support HNV farming systems and communities by simultaneously improving their socio-economic viability and environmental efficiency”. A set of 10 “learning areas” will be used to evaluate innovation examples and innovation gaps. This will include not only technical and commercial innovation but also social, institutional and policy innovation. There is also an ambitious dissemination plan for engaging farmers’ groups, researchers and other actors beyond the learning areas.

The project will support grassroots activities, such as exchange visits, which are always highly demanded by farmers on the ground. The project’s website and other communication channels will be established by mid-2016¹⁷.

¹⁷ If you want to get an update and follow the project, you can contact the HNV-LINK communication person (and Focus Group member) – Irina Herzon (herzon@mappi.helsinki.fi)

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Annex 1: What is HNV farming?

HNV farming has created and maintains habitats that are amongst the most important for biodiversity in Europe. These include a wide range of semi-natural habitats (typically with high species diversity and unique species communities), as well as habitats that are less natural but nevertheless provide important refuge for a significant number of farmland species. Many of these habitats and species are scarce and/or declining and, as a result, are the focus of conservation measures under the EU Birds and Habitats Directives. Unfortunately, various economic and social factors have caused, and continue to threaten, the abandonment (and in some cases intensification) of large areas of HNV farmland, with irreversible loss of the associated habitats and species.

The diagram here presents the simple relationship between 3 terms which are commonly used (but which are not interchangeable) when discussing the HNV farming concept:

- ▶ HNV farming,
- ▶ HNV farming systems, and
- ▶ HNV farmland.

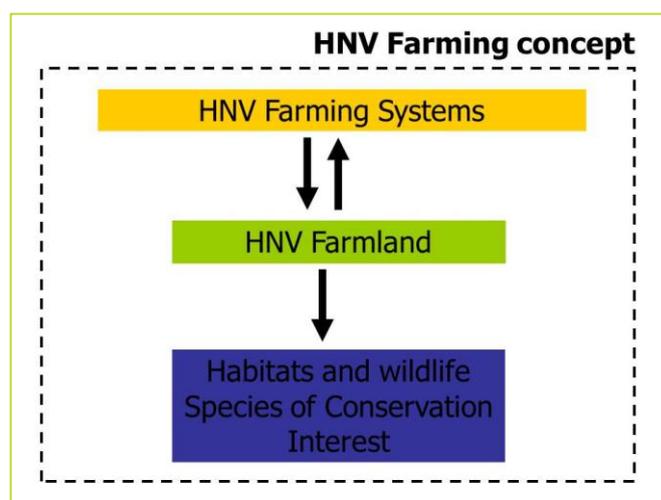
HNV Farming – this is the ‘umbrella’ concept that links HNV farming systems, HNV farmland and nature conservation issues together. HNV farming is commonly defined¹⁸ as occurring where:

- ▶ agriculture is the dominant land use;
- ▶ agriculture supports (or is associated with) a high diversity of wildlife species and habitats and/or the presence of species of European/national/regional conservation concern, and;
- ▶ the conservation of these wildlife habitats and species is dependent upon the continuation of specific agricultural practices.

HNV Farming Systems – these are the farming systems in which farmland of high nature value has both been created and continues to be maintained.

HNV farming systems vary greatly in different EU Member States reflecting the very different farming and environmental conditions across Europe¹⁹. However, the majority of HNV farming systems are characterised by long-established, predominantly low-intensity and often complex production systems. They commonly retain a certain amount of semi-natural vegetation (e.g. unimproved grasslands) and apply very few fertilisers and pesticides, use mainly labour intensive practices, and keep traditional livestock breeds and crop types that are highly adapted to local soils, vegetation and climate.

The reason that these farming systems are still in place is because they are located in the more marginal areas of Europe where: i) agricultural productivity is constrained by physical factors such as poor soils, steep slopes,



¹⁸ Based upon a definition first developed by Andersen *et al.* (2003)

¹⁹ See Oppermann *et al.* (2012) for a review of HNV farming in 35 European countries. This is the most comprehensive publication on HNV farming currently available, including a detailed explanation of the concept and real examples from all over Europe

high altitude, low rainfall etc., and/or ii) socio-economic conditions have prevented or in some cases (such as Bulgaria and Romania) reversed the intensification process in recent years.

Four broad types of HNV farming system have been identified²⁰:

- ▶ *Livestock dominated production systems* – by far the most common type of HNV farming system and encompassing many different forms of low intensity livestock production systems using semi-natural vegetation for grazing and hay-making
- ▶ *Arable dominated production systems* – relatively rare at EU level, but extensive dryland cereal cropping systems with fallow are still found on a large-scale in Spain and Portugal
- ▶ *Permanent crop dominated production systems* – traditional orchards of fruits and nuts, plus traditional vineyards and low intensity olive and carob groves are very significant in some Member States, particularly in the Mediterranean region and south-east Europe
- ▶ *Mixed production systems and mosaic HNV landscapes* – these are regionally important in many Member States, but uncommon in some others

Please see below for examples of key farming practices (with both positive and negative impacts) for each of these different HNV farming systems.

HNV Farmland – this is the main component of the HNV farming system which is of interest for nature conservation since it encompasses the habitats where the abundance and diversity of wildlife species is actually found. In some cases, HNV farmland dominates the agricultural landscape, in other cases it survives as smaller fragments within more intensively farmed or forested landscapes.

The extent and quality of HNV farmland habitats is greatly influenced by the overall functioning of the HNV farming system and the day-to-day management decisions made by farmers. Changes in the HNV farming system (such as changing the land use, intensification of production or abandonment of land) will have an impact on the biodiversity value of the HNV farmland, including the risk of significant biodiversity loss.

Three types of HNV farmland are commonly identified²¹:

- Type 1 Farmland with a high proportion of semi-natural vegetation, such as species-rich grassland.
- Type 2 Farmland with a mosaic of low intensity agriculture and semi-natural and structural elements, such as field margins, hedgerows, stone walls, patches of woodland or scrub, small rivers etc.
- Type 3 Farmland (including intensively managed crops and grassland) supporting rare species or a high proportion of European or World populations.

Function of HNV farmland within the 'farming business'

In order to begin addressing the question of how to make HNV farming more profitable, it is important to first consider the function of HNV farmland within the 'farming business'. In this case, the 'farming business' is defined as the economic activity undertaken on a single coherent and identifiable unit of farmland whether or

²⁰ Summarised by Keenleyside *et al.* (2014) and described in detail by Oppermann *et al.* (2012)

²¹ This typology was first proposed by Anderson *et al.* (2003), with further discussion and modification by EEA/UNEP (2004) and Paracchini *et al.* (2008)

not this land is currently in productive use, in a contiguous block, under the same ownership or available throughout the year.

This approach draws upon the work²² undertaken recently by the Institute of European Environmental Policy on behalf of DG Environment. The authors of the report describe three different relationships between HNV farmland and the whole area of land managed by a farming business. They stress that these relationships should be seen as points of a continuum along which an infinite variety of relationships exist. The three points in this continuum are described as:

1. **Whole farm HNV system** - farms where all land forming the 'farming business' is HNV farmland and the whole 'farming business' is managed as a low-intensity HNV farming system. Farms in this category range in size from very small to very large and are predominantly livestock based with some cropping (vegetables, fodder, arable and permanent crops). Many of these farms have survived because they occupy marginal agricultural land of low productive capacity where intensification is not cost-effective. However, they remain highly vulnerable because they have few options to adjust their production systems.

For example: **Traditional pastoralism in Romania** – mainly sheep and cattle rearing on subsistence, semi-subsistence and small family farms. Commonly involves two closely inter-connected farming systems: i) extensively-managed mixed small-holdings with small parcels of private meadow and cultivated land, plus a few animals, and ii) very low intensity summer grazing of semi-natural pastures (often in the mountains) with communal herds/flocks gathered by local shepherds from the small-holdings.

Low intensity silvo-pastoral grazing systems in Spain – mixed livestock production with cattle, sheep, goats and pigs on semi-natural pasture under an open tree canopy (*dehesa*), usually of evergreen oaks. Generally large holdings in private ownership. Some local transhumance to summer grazing in mountains.

2. **Partial HNV system** - farms where the 'farming business' utilises some low-intensity HNV (often semi-natural forage areas) alongside more intensively-managed and/or improved agricultural land. For example, the two types of farmland might be used for different types of livestock (e.g. sheep and dairy cows) or at different times of the year (e.g. summer grazing on semi-natural upland pastures).

For example: **Upland livestock production in the UK** – mainly sheep and suckler beef production on farms combining improved/semi-improved grasslands (cut for silage) in the lowlands with large areas of semi-natural upland vegetation (heathland, permanent grassland and blanket bog) used for summer grazing.

Upland mixed farms in the Czech Republic – large mixed farms with intensive arable production on parcels of better land, plus extensive beef and sheep production on upland semi-natural grasslands.

²² See Keenleyside *et al.* (2014)

3. **Remnant HNV system** - farms where there are some remaining parcels of HNV farmland, but its land management is irrelevant to the main 'farm business' which is based on intensive agricultural production.

For example: **Wooded pastures and meadows in Estonia** – small patches of semi-natural habitat which are no longer relevant to commercial livestock production.

Semi-natural grasslands on arable farms with no livestock in Finland – commonly mown under agri-environment agreements, but otherwise ungrazed (unless by cattle belonging to other farmers).

These distinctions are important in the context of this Focus Group since **the overall profitability of the so-called HNV farm is not only influenced by the intrinsic productivity of HNV farmland, but also by the proportion of HNV farmland on the farm.**

On the one hand, there are farming businesses which run entirely as low-intensity HNV farming systems (often as part of a landscape of similar farms) with all production (and maybe even some income) coming from the HNV farmland. Whereas at the other extreme, there are farms with only small remnants of HNV farmland which make an insignificant contribution to the main farm business of intensive crop or livestock production on non-HNV farmland.

In between are many partial HNV farming systems where HNV land is a functional part of a bigger production system, but it is actually the intensive agricultural production on non-HNV farmland that provides the great majority of farm business income.

The table in the following section provides examples of the farming practices found in different HNV farming systems.

Of course, the concept of **HNV farming does not end with HNV farmland and HNV farming systems.** Keeping HNV farmers on the land delivering biodiversity benefits that are appreciated and valued involves recognising that **HNV farmers and their families are part of a wider community that has needs for various services and infra-structure that other sectors of society take for granted.** As a minimum, this implies an integrated approach to rural development which not only strengthens and diversifies the opportunity for a safe and secure living from HNV farming, but also improves the quality of life for the HNV farmers and their families.

Examples of the farming practices found in different HNV farming systems

The following table is reproduced with permission from Keenleyside *et al.* (2014). See Oppermann *et al.* (2012) for more detailed descriptions of these practices in the context of HNV farming in 35 European countries.

Regular, annual management practices on HNV farmland	Less frequent maintenance /restoration management on HNV farmland	Harmful practices which threaten HNV farmland
Livestock dominated production systems		
<ul style="list-style-type: none"> • grazing with (mix of) stock types including local breeds appropriate to maintain habitat • seasonal grazing (dates vary) • grazing intensity appropriate to habitat, maintaining structural and floristic diversity, including shrubs and trees where present • shepherding on open grazing, and folding where appropriate • encourage regeneration of characteristic native tree and shrub species <p><i>Some grassland types only:</i></p> <ul style="list-style-type: none"> • fertilisers and lime not used or only in limited quantities • meadows mown after flowering period, normally one cut only, different parcels on different dates • manual mowing 	<ul style="list-style-type: none"> • removal of invasive species • control of scrub if required to restore grazing to recently abandoned land • restoration or maintenance of infrastructure for livestock management (walls, fences, drinking water, drove roads) 	<ul style="list-style-type: none"> • large scale temporary grasslands • new drainage • increased fertiliser use • use of plant-protection products
Arable dominated production systems		
<ul style="list-style-type: none"> • low-intensity management of dryland crops • fertiliser limited to animal manure on farm • fallow with spontaneous vegetation • diversity of crops in small plots • spring sowing of crops • grazing after harvest • mechanical weed control 	<ul style="list-style-type: none"> • maintenance and restoration of traditional irrigation systems (eg water meadows, gravity fed mountain systems) 	<ul style="list-style-type: none"> • increased fertiliser use • reduction of fallow area • use of plant-protection products • new irrigation

Regular, annual management practices on HNV farmland	Less frequent maintenance /restoration management on HNV farmland	Harmful practices which threaten HNV farmland
Permanent crop dominated production systems		
<ul style="list-style-type: none"> • low-intensity small-scale production • crops grown on terraces • mixed crops, local varieties, old trees • grazed semi-natural vegetation under and between trees • low input of manufactured fertilisers and biocides 	<ul style="list-style-type: none"> • maintenance of terraces and walls • appropriate pruning of trees to maintain longevity • replacements using traditional varieties 	<ul style="list-style-type: none"> • intensive understory control through repeated tillage or herbicides • intensive use of plant-protection products • irrigation
Mixed production systems and mosaic HNV landscapes		
<p>Above practices, plus:</p> <ul style="list-style-type: none"> • low intensity environmentally sensitive maintenance techniques (cutting reeds, hedges, cleaning ditches etc) • protection from harmful browsing and trampling, and from damage by machinery 	<p>Above practices, plus:</p> <ul style="list-style-type: none"> • regular maintenance of stone walls, terraces and other built structures, using appropriate local techniques and materials • pruning and replanting woody features using local techniques/species 	<p>Above practices, plus:</p> <ul style="list-style-type: none"> • removal of field boundaries, • quarrying (for stone walls and buildings) • drainage of ponds, wet areas, water courses

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Annex 2: Description of the Focus Group work and outputs

The members of the Focus Group are listed in the table at the end of this annex.

The first meeting of the Focus Group was organised by the EIP-AGRI Service Point in Madrid, Spain, in June 2014. The meeting was supported by a [Discussion Paper](#) prepared by the Coordinating Expert, Mark Redman.

Key activities during the first meeting were to:

1. Reach agreement on a general concept of sustainable HNV farming
2. Identify the acceptable 'development pathways' for making HNV farming more sustainable
3. Identify the 'fail factors' that may limit/constrain these pathways
4. Test this general concept and understanding of development pathways/fail factors by applying to 16 HNV farming case studies presented by members of the Focus Group
5. Make a preliminary brainstorm of how the available EIP-AGRI tools might be used to promote innovation in the pursuit of more sustainable HNV farming
6. Identify relevant sub-themes/key concepts for further, deeper consideration in the form of short 'mini-papers' with a particular emphasis upon developing new perspectives on key issues.

A total of 6 'mini-papers' were proposed by the Focus Group members:

- ▶ HNV specific research
- ▶ Empowerment of HNV farmers
- ▶ Selling HNV products
- ▶ Payments/rewards for ecosystem services
- ▶ Increasing household income
- ▶ Creating *a more favourable regulatory framework*

An additional mini-paper on *Innovative HNV farming machinery* was prepared by Dr. Rainer Opperman (IFAB Mannheim, Germany) who was invited as a guest speaker for the second meeting. All mini-papers are available online [here](#). Many elements of the mini-papers have been incorporated into the text of this Final Report.

The second meeting of the Focus Group was organised in Cluj-Napoca, Romania, in October 2014. Based upon the outcomes of the mini-papers, the Focus Group continued to consider in more detail:

- a) the main research needs to promote/support sustainable HNV farming
- b) the concept of so-called 'integrated HNV farming projects' – packages of actions that can be used for animating a HNV farming area or community
- c) the dissemination of the Focus Group results

This Final Report was prepared by the Coordinating Expert, Mark Redman, in detailed consultation with Focus Group members and aims to synthesise all relevant discussions, views, findings and recommendations of the Group.

Members of the Focus Group

Name	Country	Professional activity
<u>Guy Beaufoy</u>	UK/Spain	Part-time HNV farmer in Extremadura (figs and olives), Spain. Policy manager at the European Forum on Nature Conservation and Pastoralism (EFNCP)
<u>Irina Herzon</u>	Finland	Researcher and lecturer in farmland biodiversity at the University of Helsinki (Department of Agricultural Sciences). Her family co-owns a farm managing HNV areas
Ionel-Mugurel Jitea	Romania	Associate Professor at the University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, working on agricultural policy and the sustainability of HNV farming
Clunie Keenleyside	UK	Agriculture and land management expert with the Institute for European Environmental Policy (IEEP)
Airi Külvet	Estonia	HNV farmer (140 ha grassland and 70 Angus-Simmental beef cattle). Board Member of NPO Liivimaa Lihaveis, the Estonian Angus and Hereford beef cattle breeders association
Rainer Luick	Germany	Farmer, NGO expert and scientist – long-term involvement with the European Forum on Nature Conservation and Pastoralism (EFNCP)
<u>Aine Macken-Walsh</u>	Ireland	Rural Sociologist at Teagasc, Ireland's Agriculture and Food Authority
<u>Pedro d'Orey Manoel</u>	Portugal	Large-scale, dry land HNV farmer managing 2 000 ha and 800 beef cattle in an Important Bird Area (IBA) in Alentejo
<u>Katrin McCann</u>	Sweden	Farm advisor providing competence development for retaining and developing biodiversity within the current and historic farming landscapes of southern Sweden
<u>Patrick McGurn</u>	Ireland	Programme manager of the AranLIFE project on the Aran Islands in the West of Ireland. Also runs a small beef cow HNV farm in Co. Fermanagh, N. Ireland with his father
<u>Mariya Peneva</u>	Bulgaria	Researcher and lecturer in the Department of Natural Resource Economics at the University of National and World Economy (UNWE), Sofia
<u>Jordi Pietx</u>	Spain	Freelance rural stewardship and social entrepreneurship consultant
Miroslava Plassman	Slovakia	NGO expert and consultant with extensive experience of agri-environmental policies and rural development measures for supporting HNV farming systems
Razvan Popa	Romania	Director of Fundatia ADEPT Transilvania. Responsible for farm advisory services, improving access to agri-environment schemes and assisting other aspects of farm viability
Xavier Poux	France	Senior officer in ASca (consultancy) and Director of the European Forum on Nature Conservation and Pastoralism (EFNCP)
Norbert Röder	Germany	Scientist at the Thünen Institute of Rural Studies

Concha Salguero	Spain	European policy consultant, specialized in agriculture, environmental and rural development
Kurt Sannen	Belgium	Organic farmer (beef and sheep) working with nature conservation groups to manage over 100 ha of nature reserve, including wetlands, moorland and grassland
Antonella Trisorio	Italy	Rural development and agri-environmental issues expert at the Council for Agricultural Research and Analysis of Agricultural Economics (CREA)
<u>Sonja Todorovic</u>	Croatia	Agri-environment consultant and President of ECOLOGICA, a rural development NGO with special emphasis on agri-environment and HNV farming issues
Mark Redman (Lead Expert)	UK/ Romania	Free-range rural development expert active in rural networking, consultancy, research and training related to all aspects of farming and the environment
<u>Rainer Oppermann</u> (Guest Expert)	Germany	Director of the Institute for Agro-ecology and Biodiversity, Mannheim. Editor (together with G. Beaufoy and G. Jones) of <i>HNV farming in Europe</i> (2012)
Iman Boot	European Commission DG Agriculture and Rural Development	
<u>Sergiu Didicescu</u>	EIP-AGRI Service Point	
<u>Pille Koorberg</u>	EIP-AGRI Service Point	

You can contact Focus Group members through the online EIP-AGRI Network. Only registered users can access this area. If you already have an account, [you can log in here](#). If you want to become part of the EIP-AGRI Network, [please register to the website through this link](#)

Annex 3: HNV farming examples presented by members of the Focus Group

Quick Reference Guide

	Country	Title
<u>CASE STUDY 1</u>	Belgium Flanders	Natuurboerderij het Bolhuis (HNV Bolhuis)
<u>CASE STUDY 2</u>	Bulgaria	Besaparski Hills
<u>CASE STUDY 3</u>	Croatia	GAJNA – the first Pasturing Community in Croatia
<u>CASE STUDY 4</u>	Estonia	NPO Liivimaa Lihaveis
<u>CASE STUDY 5</u>	Finland	Bosgård Farm – grazing organic beef cattle on HNV coastal grasslands
<u>CASE STUDY 6</u>	France	Parc Natural Regional du Vercors – a wide spectrum of HNV challenges
<u>CASE STUDY 7</u>	Ireland	Aran Islands, County Galway
<u>CASE STUDY 8</u>	Italy	Apennines Mountains in Central Italy
<u>CASE STUDY 9</u>	North- Western/Central Europe	HNV wetland farming - cultivation of reeds
<u>CASE STUDY 10</u>	Portugal	Dry land HNV farming in Évora, Alentejo
<u>CASE STUDY 11</u>	Romania	HNV Pastoral Farms in Romania
<u>CASE STUDY 12</u>	Slovakia	HNV system in National Park Mala Fatra
<u>CASE STUDY 13</u>	Spain Catalonia	Agricultural Stewardship
<u>CASE STUDY 14</u>	Spain Extremadura	Uplands grazing
<u>CASE STUDY 15</u>	Sweden	Co-operation model for HNV management
<u>CASE STUDY 16</u>	United Kingdom Wales	Pontbren

HNV CASE STUDY 1: “Natuurboerderij het Bolhuis” (HNV Bolhuis)

Belgium (Flanders) – See: www.bolhuis.be



- Organic certification
- Availability and use of different type of machinery for management of different meadows
- Use of ancient livestock breed
- Direct selling of beef products
- Finding local and urban markets (e.g. selling with 20% higher price in Brussels)
- Linking farming with tourism
- Collaboration between farmers and conservationists

Development Pathways

- 1 - Networking and cooperation
- 2 - Farm diversification
- 3 - Increasing the selling price of HNV products and improving access to markets
- 4 - Adopting new technologies

Critical Success Factors

- Good advice from local consultant regarding choosing right breed
- Cooperation with nature conservation groups and the Flemish Nature and Forestry Agency
- Short supply chain

Actual/Potential Fail Factors

- Existing policies
- Permission and access to land (if not owning the land)

HNV CASE STUDY 2: "Besaparski Hills"

Bulgaria - See: Peneva *et al.* (2014)²³



- Cooperation
- Agro-tourism
- Higher value for local products

Development Pathways

- 1 - Networking and cooperation
- 2 - Farm diversification
- 3 - Increasing the selling price of HNV products and improving access to markets

Critical Success Factors

- Give more power to local NGOs as they know better the situation in the area
- Co-operation has to be more attractive for the farmers to join
- Certification of organic products

Actual/Potential Fail Factors

- Lack of funding
- Reticence to co-operate
- Lack of proper advice
- Lack of local empowerment and recognition
- Loss of local knowledge and practices - better access to knowledge is needed
- Local specificities are not always taken into account from national level

²³ Peneva, M., Draganova, M., Gonzalez, C., Diaz, M. and Mishev, P. (2014). High nature value farming: environmental practices for rural sustainability. **In:** Sutherland, L-A., Darnhofer, I., Wilson, G.A. and Zagata, L. (Eds.), *Transition Pathways towards Sustainability in Agriculture: Case Studies from Europe*, 97-111. CABI, Wallingford.

HNV CASE STUDY 3: "GAJNA – the first Pasturing Community in Croatia"

Croatia - See: <http://www.bed.hr/EN/index.html>



- Protected periodically flooded landscape dependant on activities of local community and traditional land use (common pastures, flooded grasslands and alluvial floodplain lowland forests)
- One of the few places in Europe where community conservation is still present
- Common grazing practices with native Croatian critically-endangered breeds Slavonia-Srijem Podolian Cattle, Croatian Posavina Horse, Black Slavonian Pig, Tsigai Sheep

Development Pathways

1 – Networking and cooperation

Critical Success Factors

- Existence of NGO that animates
- Very dedicated and highly skilled local individuals committed to help the community
- Relatively good co-operation with the authorities
- Willingness of local people to engage with the catalysts that were leading change
- NGO able to find domestic and sources of funding the farmers could not have accessed on their own

Actual/Potential Fail Factors

- Disappearance of the last generation of pastoralists and traditional knowledge of extensive grazing regimes + shepherding carries a social stigma, being linked to the poorest members of society
- Developmental pressures – intensive agriculture, unsustainable tourism, land purchase
- Unclear legal regimes in governance and land tenure + overlapping of jurisdictions impeding eligibility for subsidies
- High infrastructural costs due to floods, invasive species dispersion and overgrowth
- Absence of local markets and too far away from big city markets

HNV CASE STUDY 4: "NPO Liivimaa Lihaveis"

Estonia - See: www.liivimaalihaveis.ee/en



- Liivimaa Lihaveis is a non-profit organisation (NPO) established by Estonian owners of Angus and Hereford beef cattle
- Co-operation (currently 11 NPO members with 2 500 cattle grazing 10 000 ha of semi-natural grasslands)
- Promoting and marketing high quality beef from semi-natural (HNV) grasslands (with a specific focus upon export market)
- Organic certification
- Development of own brand and approved quality scheme (Livonian Beef)

Development Pathways

- 1 – Networking and cooperation
- 3 - Increasing the selling price of HNV products and improving access to markets

Critical Success Factors

- Presence of active, well-educated persons (catalysts) to plan, develop and manage the non-profit organisation (NPO)
- Big emphasis upon quality and customer satisfaction
- Good use of mass media to promote the brand (Livonian Beef)
- Strategic partnerships with 'celebrity' chefs to high quality, grass-fed beef
- Good partnership with reliable service providers for slaughter, cutting and packing

Actual/Potential Fail Factors

- Lack of consumer awareness about high quality beef from semi-natural (HNV) grasslands
- Resistance of consumers to pay premium price for quality product
- Competition from cheap beef imports from intensive feed-lot systems in USA, Australia and Brazil
- High reliance on service providers for final preparation of high quality product may be risky

HNV CASE STUDY 5: "Bosgård Farm – grazing organic beef cattle on HNV coastal grasslands"

Finland - See: www.bosgard.com



- Innovative development of family farm
- Diversification into tourism and recreation, including on-farm catering
- Organic certification
- Development of own farm brand
- Selling high quality HNV products directly to discerning consumers
- Long-term focus on saving costs of external inputs
- Co-operation with other local producers, including fishermen
- This is a large farm by Finnish standards and is also close to Helsinki – it clearly has some competitive advantages, but is a very inspiring example

Development Pathways

- 1 - Networking and cooperation & partnership
- 2 - Farm diversification
- 3 - Increasing the selling price of HNV products and improving access to markets

Critical Success Factors

- Large size, diverse resources, good infrastructure and available machinery
- Well-informed, educated and motivated farmers
- Shared ownership of the farm (share-holders have invested in the farm) has allowed investment in renovation/modernisation
- A 'social contract' with loyal and committed consumers – a form of community-supported agriculture
- Good use of ICT for promoting the farm products/services

Actual/Potential Fail Factors

- Businesses like this will not succeed without i) good farm management knowledge/skills and ii) dynamic entrepreneurship
- Beware of the risks of increasing productivity as the business gets more successful and demand for products increases
- Further innovation may be limited by strict regulations, high labour costs and the Finnish climate!

HNV CASE STUDY 6: "Parc Natural Regional du Vercors – a wide spectrum of HNV challenges"

France - See: http://parc-du-vercors.fr/fr_FR/les-actions-1109/agriculture-durable-1429.html



- Regional Nature Park of 200 000 ha with mixed farming systems including large areas of HNV farmland, plus some intensive dairy farms
- Landscape level management of farmland
- Better governance and empowerment through i) co-operation between farmers, and ii) partnership between farmers and local (Park) authorities
- Technological developments to increase outputs from the more intensive farms in the Park, whilst maintaining extensive practices on HNV farmland
- Diversification and alternative economic activities e.g. tourism, direct selling
- Use of PDO to help brand local products

Development Pathways

- 1 - Networking and cooperation
- 2 - Farm diversification
- 3 - Increasing the selling price of HNV products and improving access to markets
- 4 - Adopting new technologies
- 5 - Increasing the physical output of the farm (within specific constraints)

Critical Success Factors

- Presence of active persons (catalysts) to initiate the local partnership and develop an integrated 'HNV project' for the Park
- Presence of many other active local partners, including an environmental NGO and applied research institute
- Willingness of farmers to work together (e.g. exchanging cattle for grazing) essential for implementing project actions
- Good development of organic farming in the Park brings positive mentality amongst farmers

Actual/Potential Fail Factors

- Innovative projects like this are highly dependent upon the enthusiasm and energy of individuals – absence of an animator to carry on the daily HNV project will limit transferability
- Beware of 'creeping intensification' from intensive farms to HNV farms
- Lack of available advice for farmers on combining farm/business development with biodiversity management will limit transferability

HNV CASE STUDY 7: "Aran Islands, County Galway"

Ireland - See: <http://www.aranlife.ie>



- Co-operation between stakeholders, farmers, government authorities and public to improve understanding and requirements for the future management of such areas
- Gathering and use of local knowledge of islanders
- Linkage to tourism

Development Pathways

- 1 - Networking and cooperation
- 2 - Farm diversification
- 4 - Adopting new technologies
- 5 - Increasing the physical output of the farm (within specific constraints)

Critical Success Factors

- Availability of cultural landscapes
- Farmers' understanding of the importance of working together
- Financial support
- 70 farmers looking for solutions and carrying out trials together

Actual/Potential Fail Factors

- Harsh reality of local conditions – physical size of land, animal health, water availability etc.
- Economic viability of farming on islands is poor

HNV CASE STUDY 8: "Apennines Mountains in Central Italy"

Italy



- A farmers' initiative in an area dominated by extensive livestock grazing for sustainable management of natural resources, improvement of food safety and creation of better quality jobs
- Co-operation to improve marketing and reduce transaction costs
- On-farm processing
- Organic certification (meat, milk and wool)
- Diversification e.g. accommodation, farmhouse restaurants, educational activities etc.
- Shortening of supply chain via direct selling from farm/mobile selling points during tourist season
- Use of local knowledge
- Re-establishment of traditional customs/practices – notably transhumance
- Retro-innovation – adding value to traditional practices by re-inventing them for modern times
- Advocacy and lobbying for better regulatory/fiscal framework for local HNV farmers

Development Pathways

2 - Farm diversification

3 - Increasing the selling price of HNV products and improving access to markets

Critical Success Factors

- Presence of well-educated, highly skilled and active persons (catalysts) with a vision
- Presence of entrepreneurial spirit and skills - constant searching for new/niche markets
- Innovation and risk-taking
- Effective use of ICT
- Creative 'interpretation' of regulations and legal standards
- Willingness of local people to engage with the catalysts that were leading change (trust!)
- Active networking between farmers and other local actors, including researchers
- Participation and support of some local authorities (i.e. common land management, favourable policy implementation etc.)

Actual/Potential Fail Factors

- Would this have happened without visionary individuals?
- This approach will not work where farmers and other actors are risk averse
- Lack of knowledge, skills, markets etc. will limit/block the transfer of these ideas/activities in other regions
- Lack of awareness/understanding and willingness to support HNV farming by local authorities

HNV CASE STUDY 9: "HNV wetland farming - cultivation of reeds"

North-Western/Central Europe



- Co-operation (government + researchers + farmers + manufacturers of agricultural machineries + processing sector)
- Technological innovations (right machinery)
- Knowledge exchange (including cross-borders)

Development Pathways

- 1 - Networking and cooperation
- 4 - Adopting new technologies

Critical Success Factors

- Engagement of scientists
- Having government/administration involved

Actual/Potential Fail Factors

- Getting subsidies (unclear whether and how to integrate such a system in the 1st and 2nd pillar of the CAP)
- Extreme economies of scale in the processing sector which (if profitable) could contribute to significant land use change
- Access to land

HNV CASE STUDY 10: "Dry land HNV farming in Évora, Alentejo"

Portugal



- Large-scale dry land farming (2 000 ha) with 5 year crop rotation and extensive grazing of suckler cows, sheep, goats and pigs (under cork oak trees)
- Integrated crop management
- Management and enhancement of specific biodiversity features on the farm
- Increased outputs via appropriate technological/agronomic developments e.g. introduction of legumes into crop rotations, physical barriers to reduce soil loss
- Agro-tourism

Development Pathways

- 2** - Farm diversification
- 4** - Adopting new technologies
- 5** - Increasing the physical output of the farm (within specific constraints)

Critical Success Factors

- Presence of well-educated farmer with a clear vision and sense of social/environmental responsibility
- Emphasis on increasing biodiversity first and productivity second
- LIFE+ project has supported habitat creation/management on the farm

Actual/Potential Fail Factors

- Not many large-scale, dryland farms have such a highly motivated owner/manager
- Beware of 'creeping intensification' on farms such as this whereby small incremental steps towards increased productivity eventually tip balance towards biodiversity loss

HNV CASE STUDY 11: "HNV Pastoral Farms in Romania"

Romania



- Co-operation
- Agro-tourism
- Development of local production brands
- Selling products directly from farm

Development Pathways

- 1 – Networking and cooperation
- 2 - Farm diversification
- 3 - Increasing the selling price of HNV products and improving access to markets

Critical Success Factors

- Importance of a strong local leader
- Access to information and knowledge
- Farmers co-operation to create local brands and develop local products
- Importance of shepherds
- Co-operation with local tourism agency

Suggestions for research:

- More research on local traditional breeds (improving breeds)
- Socio-economic research of the HNV farming systems
- Sustainability of the HNV farm

Actual/Potential Fail Factors

- Unsustainable communities - younger generations are looking for other revenue sources (abroad or in the cities) or to transform the farm into an intensive one
- Low living standards on HNV farms
- EU regulations (e.g. regarding hygiene conditions, possibilities to get investment support etc.)
- Farms try to increase yields by crossing the local breeds
- No conservation programme for local breeds
- Powerful lobbying against HNV farming practices (even at government level)
- Loss of local knowledge and practices - better access to knowledge is needed
- Restrictive access to public resources (land, non-refundable funds)
- Land abandonment in marginal areas
- Depopulation of the mountain villages – transhumance is disappearing

- Land consolidation is becoming an increasing problem

HNV CASE STUDY 12: “HNV system in National Park Mala Fatra”

Slovakia



- Co-existence and co-operation of 3 types of farms (family farms up to large business oriented farms)
- Agro-tourism activities
- Direct sales from farm
- Promotion of local products

Development Pathways

- 1 – Networking and cooperation
- 2 - Farm diversification
- 3 - Increasing the selling price of HNV products and improving access to markets

Critical Success Factors

- Importance of education, work with children
- Creation of part time jobs, additional work to small scale farmers

Actual/Potential Fail Factors

HNV CASE STUDY 13: "Agricultural Stewardship"

Spain (Catalonia) See: www.landstewardship.eu



- Social innovation and entrepreneurship
- Farmer being put at the centre of the community
- Strong engagement farmer-nature conservationists
- Civic & local involvement in valuing & maintaining farm nature
- Long-term Agriculture & conservation agreements (10+ years)
- Networking (farmers, NGOs, local/regional government)
- LandLife was a 2011-2014 LIFE+ project aimed at extending this methodology across Europe (see website)

Development Pathways

- 1 – Networking and cooperation
- 2 - Farm diversification
- 3 - Increasing the selling price of HNV products and improving access to markets

Critical Success Factors

- Existence of a strong regional network
- Maintenance of agricultural activity which is beneficial for the environment and society
- Participating in local fairs & other shorter ways to sell farm products & services
- Involvement of government (policy, financial & institutional support)

Actual/Potential Fail Factors

- Very difficult to finance new local products e.g. wool from a local breed
- Challenge of long term deal to have an NGO-facilitator to keep the activity up.
- Need of annual monitoring of agreement terms & conservation of farm values

HNV CASE STUDY 14: "Uplands grazing"

Spain (Extremadura)



- Critical need for animation, empowerment and support
- Very traditional grazing system using of local breeds
- Adding value to local products especially processing, but restricted by inflexible hygiene inspectors
- Potential to rewards environmental services (fire prevention, biodiversity) is unfulfilled
- Scope for greater co-operation between farmers
- In this example there is a clear need for a local project looking into finding innovative ways to make HNV farming more sustainable - improving governance is critical

Development Pathways

- 1 - Networking and cooperation
- 2 - Farm diversification
- 3 - Increasing the selling price of HNV products and improving access to markets

Critical Success Factors

- Social value for tourism
- Local products - strong demand for cheese, but low value as a large part is not legally registered
- Milk prices, these fluctuate highly
- Important environmental services, especially fire prevention and biodiversity
- Regulatory framework is critical, including agriculture, rural development, hygiene and environmental policies

Actual/Potential Fail Factors

- Lack of awareness of environmental values of the farming system
- Lack of self-esteem of the farmers (linked also to a lack of successors)
- Lack of knowledge of innovation opportunities
- Very low level of CAP support, including a lack of agri-environment schemes
- Lack of investment in common land (poor management, infrastructure and pasture quality)
- Restrictive environmental policies without balancing support measures
- Blockages by regional hygiene inspectors and high cost of investments in cheese making to meet demanding regional rules
- Lack of a local project to solve these problems from the bottom up

HNV CASE STUDY 15: "Co-operation model for HNV management"

Sweden



- Co-operation/collaboration on all levels
- Recognition/local empowerment
- Identification of the area qualities
- This was presented as a model of an innovation support mechanism, where the motivators play a key role, but this doesn't affect the priorities and methods being set as local people decide what is important for them and how to proceed

Development Pathways

1 – Networking and cooperation

Critical Success Factors

- Willingness to preserve local landscapes and ways of farming
- Empowerment of local people
- Financial support available to some degree
- Working on common goals and agreeing on work methods
- Not starting with payments in mind, but from problem solving - payments are bonuses, getting them is not the end goal

Actual/Potential Fail Factors

- Lack of long running support for an animator/motivator

HNV CASE STUDY 16: "Pontbren"

United Kingdom (Wales) - See: www.coedcymru.org.uk/images/user/5472_Pontbren_CS_20v12.pdf



- This project is a cooperation initially between 3 farmers, now extended to 10. They shared objectives and planning, but developed individual projects (wood chips production for bedding, composting, trees nursery, forest belts) and they benefited from unconventional sources of funding (national lottery funds)
- Looking to improve efficiency of the farming system – use of local breeds, improve natural shelter through tree planting etc.
- Initiated by one farmer, neighbouring farmers joined in – local empowerment

Development Pathways

- 1 - Networking and cooperation
- 2 - Farm diversification

Critical Success Factors

- Co-operation can start from one objective but in the end can bring more benefits as trust is building.
- More empowered individuals, each remains in control of decisions on their own farm
- Facilitator had a critical role seeking out funding that allowed them to innovate
- Availability of an alternative funding source (national lottery) that allowed them to innovate

Actual/Potential Fail Factors

- Markets failed to provide added value
- Lack of suitable RDP funding schemes
- Lack of suitable facilitators
- Government not aware of a) what's going on, or b) the lessons to be learnt

Annex 4: Fail factors limiting the potential development pathways for sustainable HNV farming

- | | |
|--|--|
| Lack of 'catalysts'/ animators | <ul style="list-style-type: none"> • The local presence of an effective catalyst and/or animator (ideally with funding) is critical success factor for initiating/facilitating the development pathways above |
| Lack of effective knowledge transfer | <ul style="list-style-type: none"> • General lack of advisors/advisory systems with relevant HNV know-how and experience • High cost and mistrust of information which is available • Classical methods of knowledge transfer are not appropriate to HNV farmers (a very proactive and direct approach is needed) |
| Limited access to finance | <ul style="list-style-type: none"> • HNV farmers are seen as non-productive farms and consequently there is a lack of access to capital/credit • HNV farmers are not prioritised for financial support (with exception of some Member States) and some CAP rules penalise HNV farming • Lack of system for rewarding environmental services |
| Limited opportunities for marketing produce | <ul style="list-style-type: none"> • The low productivity of HNV farms means that many products cannot be sold directly to consumers (e.g. store lambs for fattening) • Hygiene rules are implemented too restrictively by many national and regional authorities (which limits possibilities for on-farm processing) • Lack of infrastructure for getting products to market • Local/short supply chains are not well developed • HNV farming is a limited market for service-providing industries (e.g. slaughterhouses, machinery suppliers etc.) • Limited 'market power' of HNV farms (farms are small and scattered) |
| Lack of understanding | <ul style="list-style-type: none"> • General lack of awareness/knowledge about HNV farming (including amongst farming unions that represent the interests of farmers) and the ecological services provided by HNV farming systems • Media has very limited understanding/perspective regarding HNV farming • Lack of balanced information on HNV farming systems e.g. views on greenhouse gas emissions from grazing cattle are not balanced by the biodiversity benefits of grazing cattle • In some situations, nature conservationists and farmers do not understand each other |
| Lack of consumer awareness | <ul style="list-style-type: none"> • Lack of consumer awareness of HNV farming and its environmental and social benefits • 'Quality' livestock products commonly perceived by some consumers as coming from large-scale, intensive systems and/or produced abroad (e.g. Argentinian beef) • No relevant labelling for HNV products • Consumers are alienated from farmers and the realities of rural life |

- Risk aversion**
- Risk aversion – both of HNV farmers *and* of the national authorities responsible for spending public money on support for HNV farmers
- Identity and confidence**
- Social stigma – HNV farmers are perceived by some as ‘failures’ that need to modernise and intensify
 - Lack of self-confidence and behavioural flexibility to adapt
 - Lack of social networks for geographically isolated HNV farmers
- Poor governance and disempowerment of HNV farmers**
- Policy makers do not understand the specific needs and benefits of HNV farming
 - Lack of public debate about farming and biodiversity, including HNV farming
 - Policy/regulatory frameworks assume ‘one-size-fits-all’ and do not consider specific risks HNV farmers are exposed to
 - Dominant influence of agri-business interests in policy-making and political lobbying
 - No real willingness to support HNV farming – many policies are skewed against HNV farmers and penalise HNV characteristics e.g. decoupled payments and limited access to land remain key issues
 - Limited measures and budgets for rewarding ecosystem services
 - Main focus of CAP is still upon promoting competitiveness of EU agriculture to challenge global markets
- Lack of HNV-specific research**
- Lack of applied research on HNV related issues, including lack of data collection on the economic performance of HNV farms and farm households
 - Researchers are often more focused on peer-reviewed publications than on problem-solving for farmers
 - Research continues to be orientated towards intensive agriculture

Annex 5: 10-point checklist for animating a HNV farming area

1	<ul style="list-style-type: none"> • Work in close contact with farmers and other key stakeholders to identify, raise awareness, develop knowledge and promote appreciation of the VALUES of the area • Use the media (local and national) – be creative – develop stories, look for celebrity support
2	<ul style="list-style-type: none"> • Promote as necessary e.g. about Natura 2000, rural development and LEADER funds, incentive and social investment policies, other national/regional schemes
3	<ul style="list-style-type: none"> • Identify all the actors present that are both directly and indirectly related to HNV farming • Contact/engage with the leaders in the community • Look for the 'catalysts' with contacts, knowledge and trust • Work at many levels – build trust! • Audit the authorities – seek the positive and the effective
4	<ul style="list-style-type: none"> • Aim to understand the system you are working with – what are the risks and opportunities? • Investigate the possibilities together with farmers and other stakeholders • Think long-term (25+ years)
5	<ul style="list-style-type: none"> • Be clear about your goals – what are you trying to do?
6	<ul style="list-style-type: none"> • Start something - the power of example! • Do not wait for funding • Show examples from elsewhere • Exchange farmers with other areas
7	<ul style="list-style-type: none"> • Go with the flow!
8	<ul style="list-style-type: none"> • Encourage collaboration, engagement and partnership - generate agreements • Promote community action and pride in HNV farming • Foster open discussion, creativity, innovation and change
9	<ul style="list-style-type: none"> • Link HNV farming with the local economy – add value to local products and/or add products to local values • Look for alternative sources of income
10	<ul style="list-style-type: none"> • Look for investment. Try to involve the local community e.g. crowd-funding

Annex 6: Dissemination of Focus Group results and recommendations

Potential steps for the dissemination at EU/national/local level of the HNV Focus Group results include:

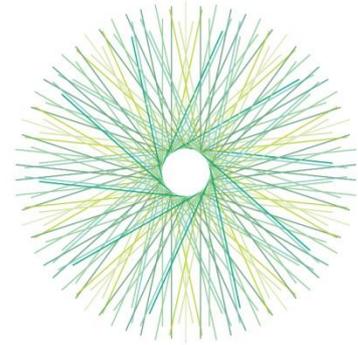
- **PUBLICATIONS** – well-written and well-designed printed publications remain a powerful tool for raising awareness, highlighting opportunities, clarifying technical issues etc. Publications based on Focus Group outputs include: final report, mini-papers, press article and finally, targeted brochures/leaflets which highlight various practical aspects extracted from the final report entitled for example as follows: the animation check list “the first handbook of the HNV enthusiast”, guidance for initiating Operational Groups work “let’s get started”, enabling conditions “how could you as a policy maker enable sustainability of HNV farming systems?”, needs for further research “what challenges for research of HNV farming systems sustainability?”.
- **WEBSITE** – in addition to publishing electronic copies of outputs, a HNV discussion group/on-line community will be open where members of the Focus Group can stay in touch and continue to exchange.
- **SOCIAL MEDIA** – Powerful social media channels such as Twitter, Facebook and LinkedIn could be used for dissemination purposes.
- **EVENTS** – there is potential for contributing to workshops, seminars and conferences, both at EU level (organised by the EIP-AGRI Service Point) and national events (organised by Focus Group experts). It is possible that events can be created via the EIP-AGRI network, European Network for Rural Development (ENRD) or the National Rural Networks (NRNs). More direct engagement with active NGOs would be good.

Some examples of good practice in organising events exist (e.g. the national event held in Ireland in 2014 and 2015 for bringing together HNV area actors and media) and it would be good to have similar events in other Member States.

An EU level event for Managing Authorities and Operational Groups on a theme such as ‘Innovation and the Socio-economic Sustainability of HNV Farming’ could be a possibility.

Focus Group experts could also organise national events themselves, with input from the EIP-AGRI Service Point if necessary (e.g. presentation and translated materials).

- **HORIZON 2020** – priority themes from this Focus Group will be amongst others considered for future calls for Horizon 2020 research projects.
- **NETWORKS** – there are lots of possibilities for networking HNV projects and interested organisations, including an ‘educational network’ linking lecturers, students, trainers, facilitators, animators etc. with an active interest in preparing future generations of HNV farmers.



eip-agri
AGRICULTURE & INNOVATION

The European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI) is one of five EIPs launched by the European Commission in a bid to promote rapid modernisation by stepping up innovation efforts.

The **EIP-AGRI** aims to catalyse the innovation process in the **agricultural and forestry sectors** by bringing **research and practice closer together** – in research and innovation projects as well as *through* the EIP-AGRI network.

EIPs aim to streamline, simplify and better coordinate existing instruments and initiatives and complement them with actions where necessary. Two specific funding sources are particularly important for the EIP-AGRI:

- ▶ the EU Research and Innovation framework, Horizon 2020,
- ▶ the EU Rural Development Policy.

An EIP AGRI Focus Group* is one of several different building blocks of the EIP-AGRI network, which is funded under the EU Rural Development policy. Working on a narrowly defined issue, Focus Groups temporarily bring together around 20 experts (such as farmers, advisers, researchers, up- and downstream businesses and NGOs) to map and develop solutions within their field.

The concrete objectives of a Focus Group are:

- ▶ to take stock of the state of art of practice and research in its field, listing problems and opportunities;
- ▶ to identify needs from practice and propose directions for further research;
- ▶ to propose priorities for innovative actions by suggesting potential projects for Operational Groups working under Rural Development or other project formats to test solutions and opportunities, including ways to disseminate the practical knowledge gathered.

Results are normally published in a report within 12-18 months of the launch of a given Focus Group.

Experts are selected based on an open call for interest. Each expert is appointed based on his or her personal knowledge and experience in the particular field and therefore does not represent an organisation or a Member State.

*More details on EIP-AGRI Focus Group aims and process are given in its charter on: http://ec.europa.eu/agriculture/eip/focus-groups/charter_en.pdf
More information: [EIP-AGRI brochure on Focus Groups](#)



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