



Innovation for High Nature Value farming systems

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This presentation is produced by the HNV-Link project - www.hnvlink.eu



THIS PROJECT HAS RECEIVED FUNDING FROM THE EUROPEAN UNION HORIZON 2020
RESEARCH AND INNOVATION PROGRAMME UNDER GRANT AGREEMENT NO. 696391

Notes for instructors and users

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Learning objectives

- To get acquainted with the concept of High Nature Value farming (HNVf) systems
- To understand major challenges and opportunities faced by farmers in HNVF system types
- To become familiar with a variety of innovations existing in the HNVf systems
- To recognize the principles of successful innovation process in the HNVf systems

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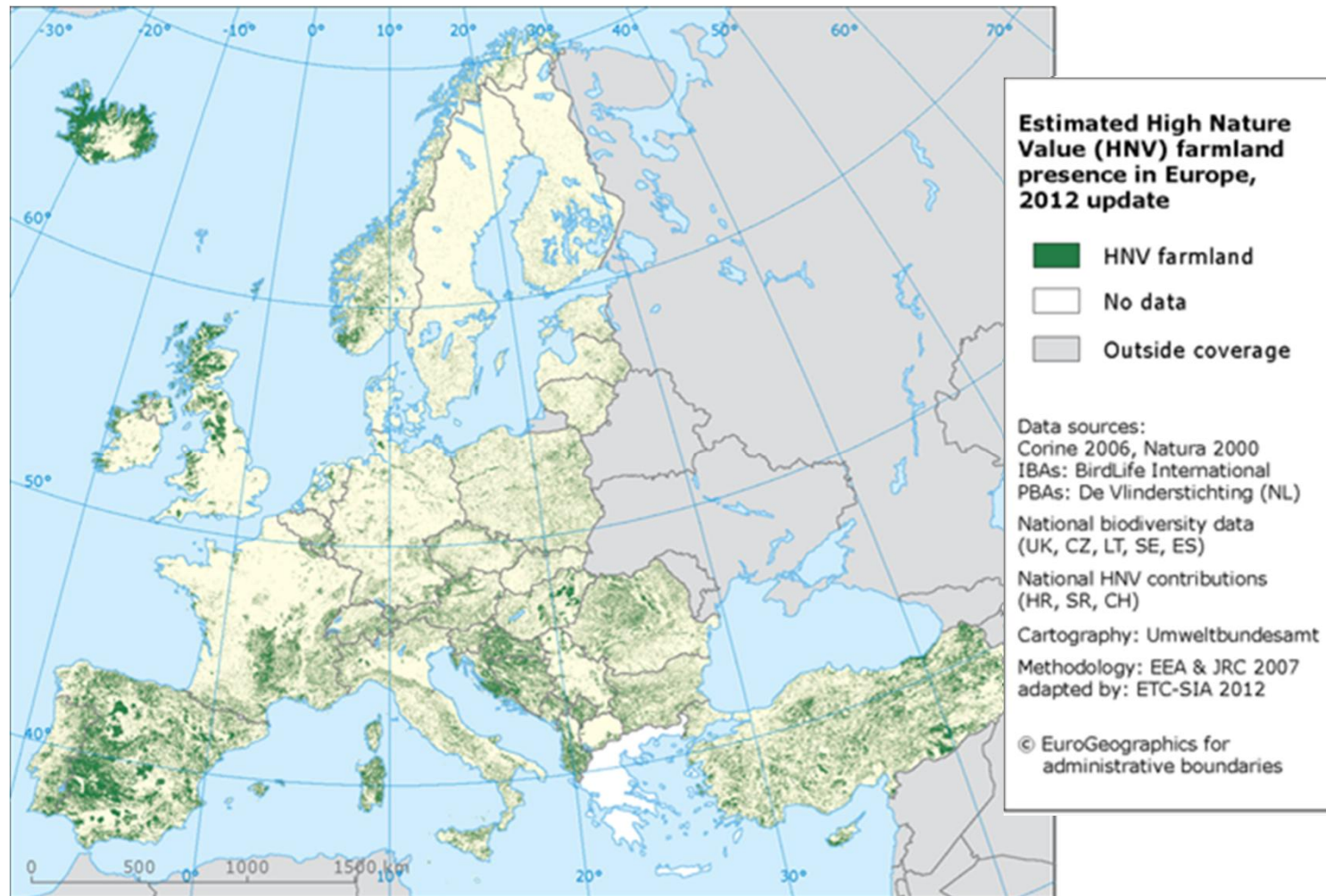
- Concept of HNV farmland HNV farming systems & challenges
- Importance of innovation
 - Types of innovation
 - Examples from HNV-Link project
- Generic principles of innovation process

HIGH NATURE VALUE FARMLAND



"Areas in Europe where agriculture is a major (usually the dominant) land use and where agriculture sustains or is associated with either a high species and habitat diversity, or the presence of species of European conservation concern, or both" (Andersen et al. 2003)





- Mostly semi-natural grassland
 - On land marginal in many senses
 - Requires targeted rural development & policy support, and specific marketing approaches

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HNV farming (HNVf) systems

Whole-farm HNVf

Low-intensity management of all land, common land, transhumance, seasonal grazing, mixed crops and livestock, fallow, hand labour, shepherding

Partial HNVf

HNV farmland is managed alongside more intensive land. Some common land, seasonal grazing, fallow, mixed crop and stock

Remnant HNVf

HNV farmland unrelated to production. It is managed for cross-compliance, nature conservation or agri-environment payments

Examples

Mountainous regions, islands

(organic) livestock farms, esp. suckler cows or sheep

Traditional multifunctional systems

SNG = semi-natural grassland

Small patches of SNG habitats

SNG mown for payments only

Remnants of landscape features

Whole farm HNVf systems

- Mountainous landscapes, areas with difficult terrain

Extremadura, Spain



Seasonal grazing



West Ireland

Shepherding and transhumance



Commons, transhumance



Sevenne, France

Whole farm HNVf systems

- Diversified traditional systems



Dehesa in Spain & Montado in Portugal:
Quercus spp, pasture and arable



Mediterranean perennial crops: olives and
other high value trees (e.g. nuts), honey,
pasture, herbs

Challenges



Depopulation

Hygiene situation and reaching consumers



Abandonment of remote pastures



Pastures not eligible for CAP direct support



Shepherding viability

Whole farm HNVf systems

Opportunities:

- Marketable products exist
- Considerable public goods
- Some are touristic destinations

Needs:

- Comprehensive policy (incl. adapted regulations, payments for public goods)
- Specialist marketing & technological solutions
- Novel social arrangements
- Novel (transformative) strategies for development



Partial HNVf systems

- Probably the commonest type in Central & Northern Europe



Semi-natural area =
summer pasture

Intensive cropping =
winter fodder



Partial HNVf systems

- Probably the commonest type in Central & Northern Europe



Suckler cows



Beef steers

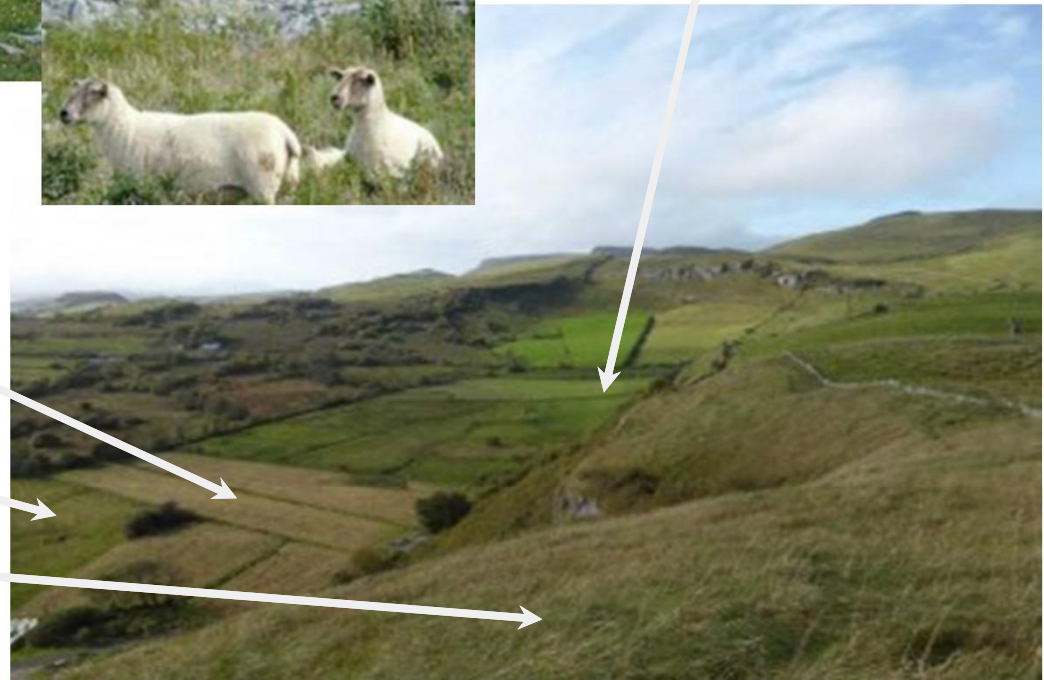


Improved grasslands

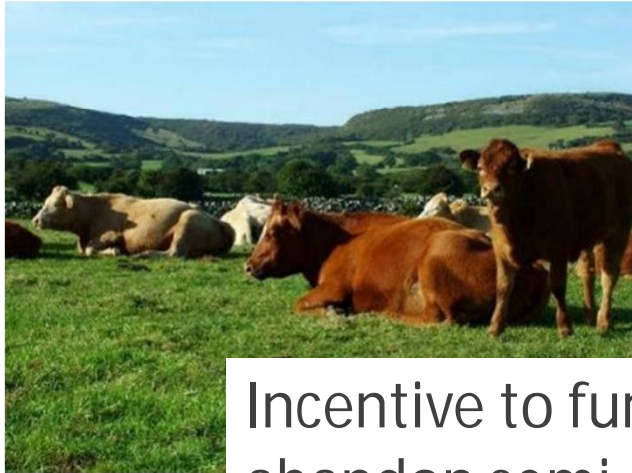
Mixed crop rotations

Fallow land

Semi-natural area



Challenges



Incentive to further intensify or abandon semi-natural patches



Limited & highly variable productivity of semi-natural patches



Adding value to products from such mixed production

Partial HNVf systems

Opportunities:

- Marketable products exist
- Special product(s) & diversification
- Considerable public goods
- Efficient use of farm-level resources

Needs:

- Policy for maintenance of extensive areas
- Specialist marketing solutions
- Technology & know-how also for extensive production



Remnant HNVf systems

- Spread across intensive agricultural landscapes
- Maintenance for landscaping & conservation



Semi-natural grasslands mown only because of public payments, hay bales dumped



Restoration of an old forest pasture by volunteers, Finland

Example of mowing by volunteers in Switzerland

<https://www.youtube.com/watch?v=1mtvKzB8gbc>

Challenges

Uncertain continuity: small flocks of animals



Total dependence on public payments

No products for special marketing

Vanishing knowledge: a pasture under restoration overgrown with nettles



Expensive management of small patches

Remnant HNVf systems



Opportunities:

- Off-farm inputs of labour and capital (volunteers)
- Other benefits from high value nature remnant areas: recreation, landscape, aesthetic, hunting, education

Needs:

- Restoration
- Technology & knowledge for efficient management
- Novel social contract modes

HNVf system types

Whole-farm HNVf



Partial HNVf



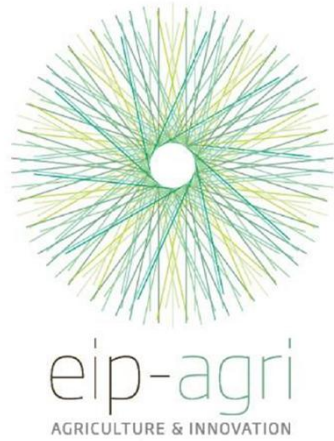
Remnant HNVf



- Each type has own challenges
- Each type may need different policy support tools and marketing strategies
- Each type needs innovations

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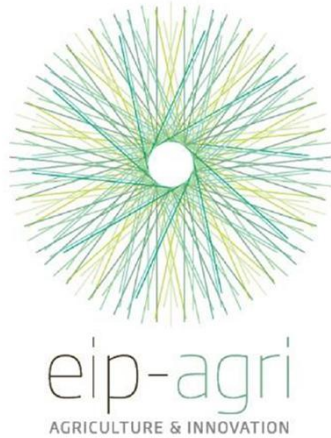
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European Innovation Partnership for Agricultural Sustainability and Productivity (EIP-AGRI)

- Focus Group on High Nature Value farming profitability:
 - How to improve the social and economic sustainability of HNV farming without losing the HNV characteristics?

Report: <https://ec.europa.eu/eip/agriculture/en/content/eip-agri-focus-group-high-nature-value-farming-profitability-final-report>



EIP-AGRI Focus Group proposed to work on:

- Better understanding of HNV farming systems: socio-economic characteristics, economic performance, motivation, social dynamic, trends
- Analysing the role of innovation in HNV farming systems
- Developing technical and management solutions

HNV-Link

Network dedicated to supporting HNV farming, focuses on innovations improving simultaneously socio-economic viability and environmental efficiency.



This project has received funding from the European Union Horizon 2020 research and innovation programme under Grant Agreement No. 696391



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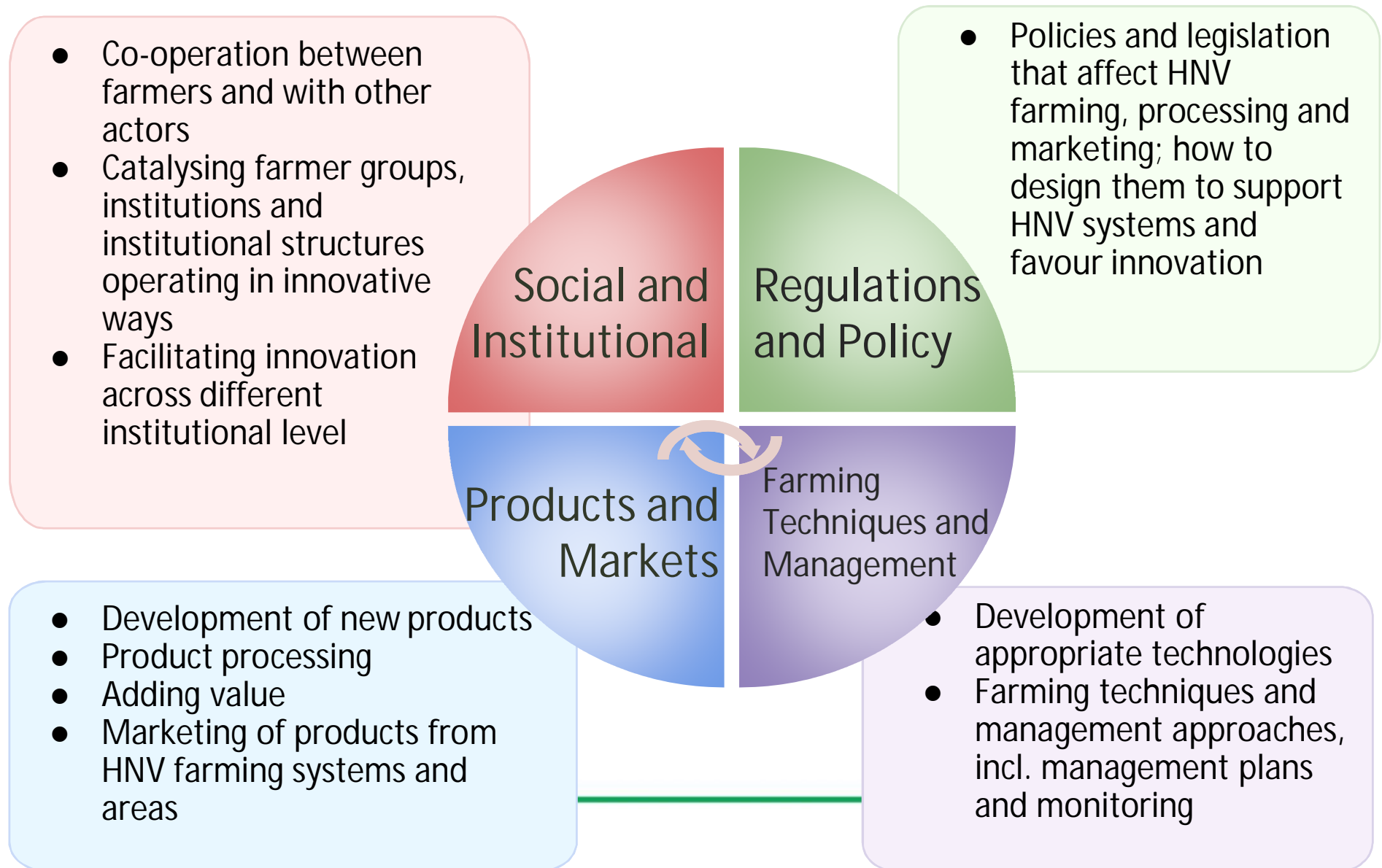
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“HNV farming innovation”

= a change in the social, institutional, regulatory, market or farming approach that makes it better able to conserve HNV farming and its characteristics (HNV-Link project).

- Not necessarily an explicit conservation objective, but with the effect of maintaining nature values
 - even if as a side-effect of another objective (e.g. socio-economic viability).
- A relative notion of innovation: depends on the context of a given area, at a given time
 - an innovation in one country might be an already established approach in another.

The HNV-Link innovation themes



Social & Institutional innovation needs

Examples identified in HNV-Link	Countries with examples
Improved representation and empowerment of HNV farmers, e.g. through associations, Operational Groups, local projects and processes	IE, UK
Institutional dialogue with HNV farmers on policy issues such as animal health, Natura 2000 plans	RO, UK
Outreach, advisory services, local projects targeted at supporting HNV farmers	BG, ES, IE, GR
Integration across institutions to develop a coordinated approach to extensive pastoralism at regional level	FR
Civil society and local administration (e.g. municipalities) coming together to establish local strategies for pastoralism	FR, SE
Improved quality of working life to attract young people into HNV farming	GR

Regulatory & Policy innovation needs

Examples identified in HNV-Link	Countries with examples
Adapt CAP Pillar 1 rules to the characteristics of extensive grazing land	FR
Use CAP Pillar 2 options to support extensive grazing for delivery of other policy aims (biodiversity, fire prevention)	BG, IE, RO, UK
Develop locally led HNV projects, with payment to farmers for biodiversity results	IE, UK
Adapt the implementation of food hygiene rules and other legislation that creates barriers to innovative processing and marketing of livestock products	FR
Adapt animal health campaigns (e.g. for eradication of TB) to the realities and needs of extensive grazing systems on common pastures with wild fauna vectors	UK
Adapt national and regional rules, e.g. for grazing and management of municipal pastures	BG

Products & Markets innovation needs

Examples of needs identified by the LA	Examples of approaches
Branding/marketing/certifying products from extensive grazing systems (differentiation from intensive livestock)	FR, GR, HR, RO, SE
Joint farmers' marketing and/or processing (e.g. farmers running small-scale local abattoirs)	BG, FR
Farmers' markets specifically for products from HNV-type systems	BG
On-farm processing and direct sales from the farm	PT, SE
Alternative products e.g. environmental services, HNV agri-tourism	HR

Farm Techniques & Management innovation needs

Examples identified in HNV-Link	Countries with examples
Improved efficiency and reducing costs through better infrastructure, technical developments and organisation.	RO, SE
Better management on extensive and common pastures for animal health control.	UK
Management plans for pastures, especially integrated planning for production and environmental services, including common pastures.	FR, RO
Efficient and nature-friendly improvement of pastures, especially scrub and fire control methods.	UK
Technical development of small-scale, low-impact processing, including mobile dairies and abattoirs	BG, SE

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Bulgaria, Western Stara Planina “Food from the Mountain”

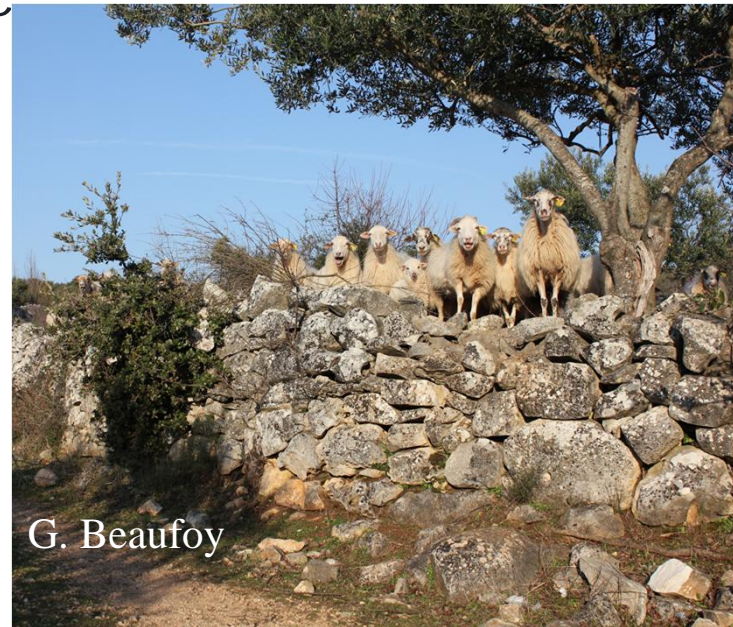
- Producers’ association: created by 9 farmers to promote their region and support their HNV-farming based livelihoods.
- Challenge: poor profitability
- Activities: Farmers (having livestock in extensive grazing, traditional cheese production, small-scale winery, as well as production of honey, jams and other preserves from forest fruits) participate in weekly farmers’ market in Sofia, and in other national fairs and events



Croatia, Dalmatian Island

Dry stone walls initiative

- By a local NGO - 4 Grada Dragodid - to restore a key element of the HNV mosaic farmland landscape
- Challenge: Dry stone walls have over 2000 year history in the region but fall in disrepair.
- Activities: UNESCO nominated the dry stone walls as an intangible cultural heritage of humanity;
- National government established public support.



G. Beaufoy

Portugal, Sítio de Monfurado

Peer learning circle for montado farming

- Group of farmers meeting together for over 15 years to share experiences and knowledge for montado farming.
- Challenge: Soil degradation
- Activities: Peer-learning meetings to learn about improving soil fertility techniques (e.g. direct seeding)
- Farmers abandoned conventional practices



UK, Dartmoor

The Commons' TB Control Plan

- A site assessment method to reduce the number of tuberculosis tests to conduct on cattle grazing the commons without compromising health and safety.
- Challenge: high risk for tuberculosis; stringent measures reduced grazing of the commons.
- Activities: a comprehensive TB-control plan developed by a variety of stakeholders (farmers, policy stakeholders, veterinarians).

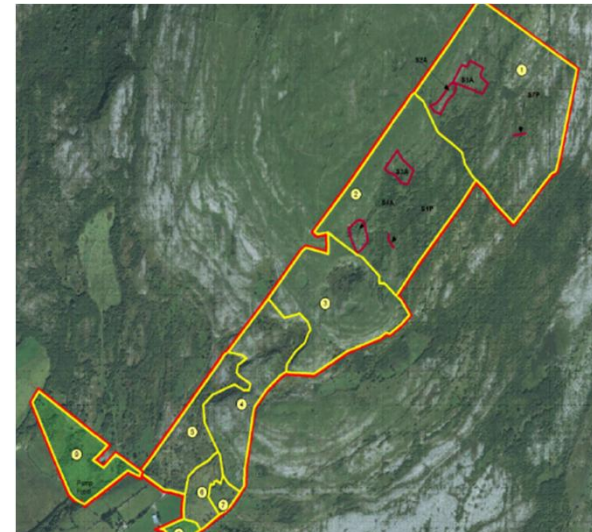


Cattle waiting for a TB test; HNV-Link

Ireland, The Burren

A 'Hybrid' Agri-Environmental Scheme (AES)

- Public incentives to reward farmers for the delivery of clearly defined environmental outputs, such as diversity of semi-natural pastures
- Challenge: public payments per areas do not encourage adoption of best management practices.
- Activities: since 2010, 450 farm families working on c. 30,000 ha of HNV farmland participated.



France, Causses & Cévennes

Intercommunal Pastoral Agreement

- A project initiated by pastoral breeders in extensive rangelands for better land control and collective land management
- Challenge: Decline in pastoralism, management conflicts
- Activities: a feasible action plan in 2016: to make pastoral land available and ensure the continuation and revival of pastoral activities



Spain, La Vera QUERED

- a national association of artisan cheese producers.
- Challenge: hygiene rules and regulations disadvantage small producers.
- Activities: adaptation of rules and bureaucracy to the reality of artisan cheese dairies. Tangible benefits to producers.

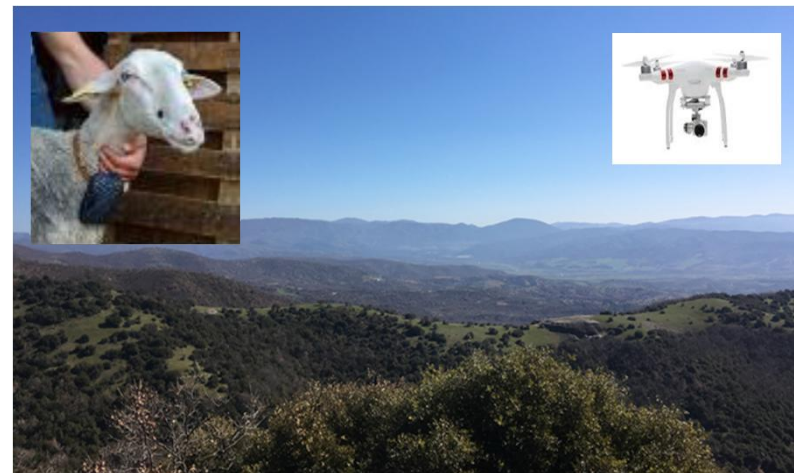


Innovative mobile cheese dairy

Greece, Thessalia

GPS tracking of extensive livestock

- Use of GPS on sheep and drones for monitoring the state of the pastures and flock movements.
- Challenge: overgrazing risks, conflicts with forestry, poor values from extensive livestock products.
- Activities: Terra Thessalia company uses technology to certify the extensive livestock and give added value to the dairy products. It allows monitoring implementation of the grazing plans.



<http://www.terrathessalia.gr/?LANG=en>

Sweden, Dalsland

Mobile abattoir Hälsingestintan

- Europe's first mobile butchery for fully grown cattle
- Challenge: long distances to slaughtering facilities – an obstacle for producers in HNV farmland; long-distance transportation causes heavy stress to animals.
- Activities: slaughtering and cutting happens on farm; meat is labeled as "ethical" meat.



<https://www.finedininglovers.com/stories/ethical-meat-halsingestintan/>

Sweden, Dalsland

Community Supported Sheep

- a new approach of the Svanängen farm to market meat from HNV farmland.
- Challenge: High production costs, uncertain markets
- Activities: Customers buy a lamb before the season; support restoration of semi-natural pastures, and give the farmer family security



<https://www.andelslamm.se/>

Finland, Uusimaa

Nature management support of Fingrid

- An agreement between the national electricity network and owners of animals for managing patches under the electric lines – refuges of semi-natural vegetation
- Challenge: exceptionally endangered state of semi-natural communities
- Activities: the company pays small animal owners for management (incl. fencing).



Latvia

Pet pellets

- Mown biomass from semi-natural vegetation is made into pellets for pets
- Challenge: biomass is of poor nutritional quality for modern production animals, becomes a waste
- Activities: some companies use it for producing pellets for pets or for bedding and energy



<http://www.nicety.lv>

For more examples: <https://vivagrass.eu/wp-content/uploads/2016/03/befvivagrasswwwuus.pdf>

Germany

Mowing equipment

- that is effective on small areas and/or difficult terrain (slopes, uneven, stony) but also nature sensitive and reasonably priced.
- Challenge: high relative costs of managing semi-natural areas
- Activities: designing and producing innovative mowing equipment for smallholders and hobby farmers;
 - e.g. Adept Foundation supports implementation in Transylvania, Romania



For more examples: <https://www.youtube.com/watch?v=ZG7f72BYa5U>

<http://www.brielmaier.com>

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Need for innovation bundles



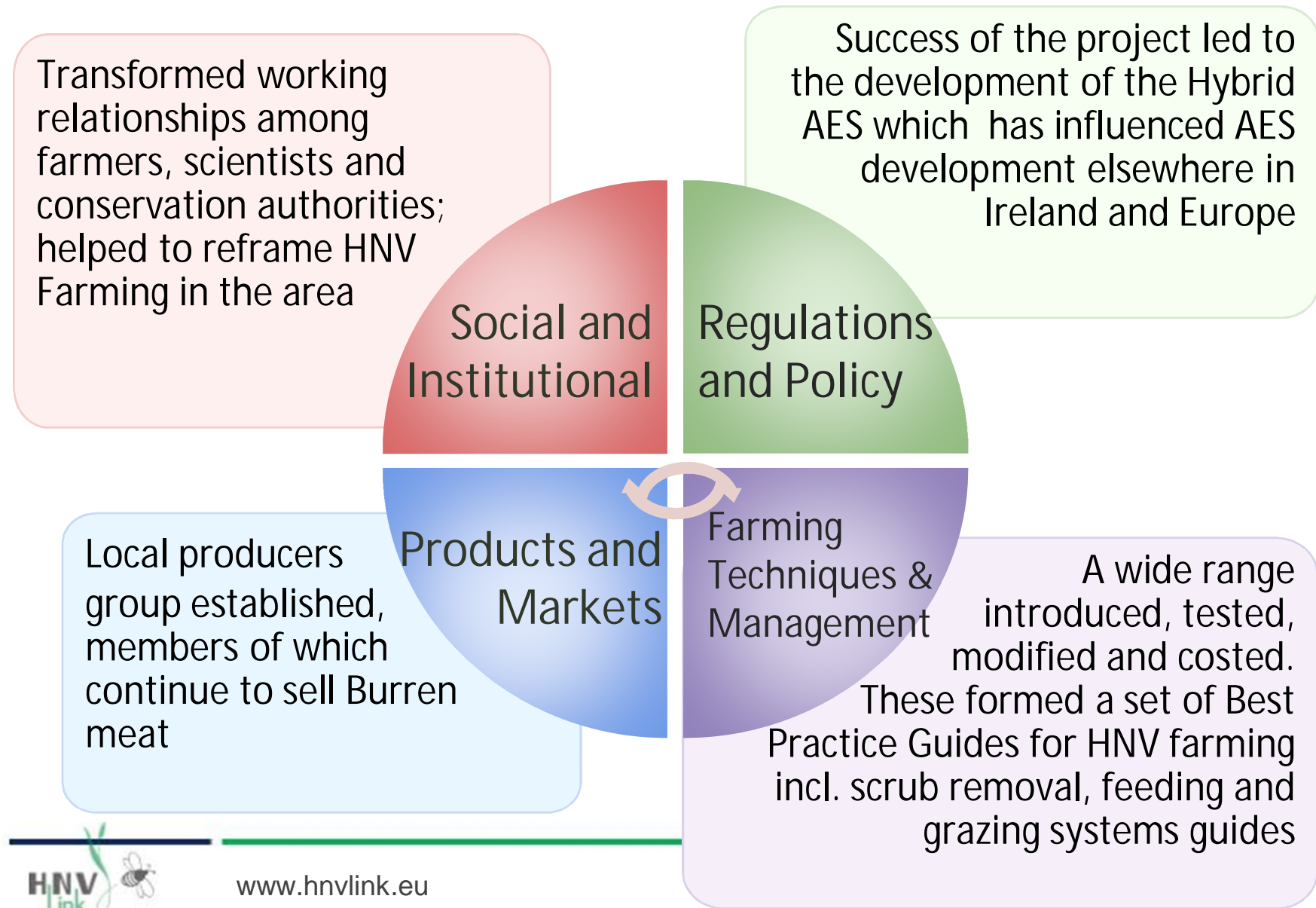


BurrenLIFE project: co-creating solutions to HNV farming challenges

- A participatory approach among farmers, and also with administrators and conservationists.
- Focus at: conservation status of HNV Farmland and farming infrastructure.
- Farmers participation in delivering ecological results

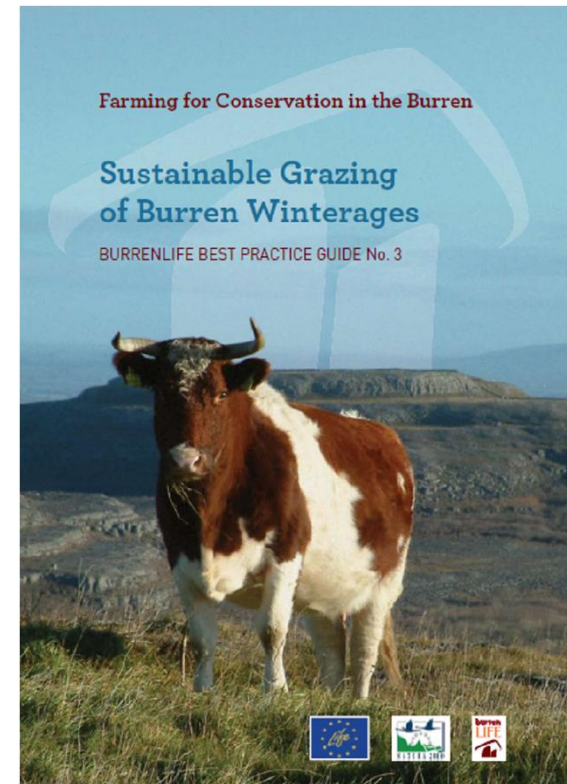


Innovation bundle of BurrenLIFE



General principles for success

- Getting disparate stakeholders to identify common ground and focus on opportunities as well as challenges
- Understanding the perspective of others, identifying the common ground and mutual benefits
- Involving farmers in the co-creation of solutions to HNV challenges -> much more embedded and effective outcomes
- Having a practical but robust scientific approach -> credibility to the solutions



Innovation findings of HNV-Link

- Identified 63 relevant examples in the project areas and further 80
- Discovered and described outstanding initiatives in all project countries
- Mostly led by farmers, NGOs, advisors and local researchers
- Only in some cases, governments are also being innovative, and supporting innovation on the ground
- Nowhere is innovation happening on a sufficient scale to respond to the range of challenges facing HNV farming.
- Institutional and regulatory barriers are often blocking innovation on the ground

Can innovation secure a future for HNV farming?

- Successful innovations exist in many places
- Expanding their usage - a major challenge
- Prominent role of a leader or facilitator (incl. NGO, group of locals, expert)
- Institutional & Regulatory innovation needed to enable and facilitate all other innovations
- Need for a long-term, multi-actor “HNV innovation process” integrating the four innovation themes.
- EIP Operational Groups and pilot projects - opportunity for kick-starting innovative processes at local level

Group work

Based on the framework and working from examples, choose and analyse a rural development project that uses innovations from your region/country



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High Nature Value Farming: Learning, Innovation and Knowledge HNV-Link

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