



European Network for  
Rural Development

**EU RURAL REVIEW**  
No 23

# GREEN ECONOMY OPPORTUNITIES FOR RURAL EUROPE



## European Network for Rural Development

The European Network for Rural Development (ENRD) is the hub that connects rural development stakeholders throughout the European Union (EU). The ENRD contributes to the effective implementation of Member States' Rural Development Programmes (RDPs) by generating and sharing knowledge, as well as through facilitating information exchange and cooperation across rural Europe.

Each Member State has established a National Rural Network (NRN) that brings together the organisations and administrations involved in rural development. At EU level, the ENRD supports the networking of these NRNs, national administrations and European organisations.

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## Introduction

A green economy is one that provides economic opportunities and improved human well-being in harmony with the sustainable management of natural resources. (See p.5 for the formal definition.)

The transition to green rural economies is about improving people's lives and livelihoods in rural areas, balancing natural resource use with maintaining incomes, and trading the risks of making a change with the opportunities that change will bring.

Promoting the Transition to the Green Economy was a priority theme of the ENRD Contact Point's Annual Work Programme for 2015-16, supported by Thematic Group work.<sup>1</sup>

This edition of the EU Rural Review picks up on this work and presents the main areas of discussion and related findings. It specifically aims to show how Rural Development Programmes (RDPs) can be used to take advantage of rural development opportunities in transition to the green economy.

### ENRD THEMATIC GROUP ON TRANSITION TO THE GREEN ECONOMY

An ENRD Thematic Group (TG) was established in late 2015 focusing on 'Transition to the Green Economy'. The group was made up of interested stakeholders including representatives of the National Rural Networks, Managing Authorities, European organisations and the European Commission.

The group met for the first time on 16 December in Brussels, before subsequent meetings in Rotterdam (6-7 April 2016) and Brussels again (17 May 2016).

The scope of the group's work was defined at the first meeting, where the official definition of 'green economy' of the United Nations Environment Programme was adopted (see page 5).

The second meeting focused on design and implementation of effective projects to support transition to the green economy and included study visits around Rotterdam.

The third meeting looked more at how RDPs are programming Measures to support transition to the green economy and how these can connect with broader national and regional support mechanisms.

The group's work concluded with a European Seminar: 'Changing our Mindsets – Seizing opportunities in the Green Economy'. The main aim was to share examples and experiences and to generate concrete proposals for using the RDPs to help rural stakeholders benefit fully from all the opportunities that a green economy can bring.

The outcomes of this work feed strongly into this publication.



## STRUCTURE OF THE PUBLICATION

### 1. The 'green economy' – an introduction

The first article explains what the 'green economy' is and some of the key drivers to make the transition to the green economy. It stresses the need to balance economic, environmental and social objectives in progressing from business-as-usual approaches to true environmental sustainability.

It goes on to present some of the links between various EU policies – including Rural Development policy – and the transition to the green economy.

### 2. Moving to a low-carbon economy

The second article explores how Rural Development Programmes can support the move to the low-carbon economy, by supporting rural actors to seek economic opportunities through low-carbon activities. Potential support can include advice and training (M1), farm business development (M6), afforestation and management of forests (M8&15) and investment support (M4).

The move to a low-carbon economy is recognised as essential for the future prosperity of the European Union in the context of global climate change and limited natural resources.

### 3. Sustainable farming and forestry

The third article reflects on how RDPs can support farmers and foresters to make the sometimes-difficult changes required to be more environmentally sustainable in the long term.

It discusses opportunities for adding and extracting 'green value' from rural production chains and from the provision of environmental services. It also explores the unique role that farming and forestry have in increasing carbon sequestration and conservation from effective land management.

### 4. Green economy projects: what we know

The fourth article presents some key ideas and guidance for green economy projects.

It presents the findings of a specific study by members of the ENRD Thematic Group on practical examples of green economy projects, including reflections on what they should do, the key steps in their development, how to overcome common barriers and common success factors.

### 5. Cooperation – achieving more together

The fifth article presents the ways in which cooperation can support the transition to the green economy. Cooperation can have a particular role to play in this context due to the need to balance multiple interests and objectives.

Cooperation can usefully take place across sectors – such as between researchers, private companies and local authorities as well as at landscape level, bringing social, economic and environmental interests together to achieve benefits for all. The article explores examples of green clusters and green hubs in rural areas to facilitate such cooperation.

### 6. Using the RDPs to support transition to a green economy

Finally, the sixth article explores some examples of how Rural Development Programmes (RDPs) have programmed various Measures to support transition to the green economy. This analysis is based on a small selection of RDPs identified by the Thematic Group.

The article concludes that achieving the full scale of the potential transition will require action on many fronts and adoption of current good practice on a much greater scale. It will be important to continue exploring ways to combine RDP Measures better in integrated support packages – particularly looking at how these might support cooperation and small-scale investments at local level.



# 1. The Green Economy

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The ‘green economy’ is: “An economy that results in improved human well-being and reduced inequalities over the long term, while not exposing future generations to significant environmental risks and ecological scarcities,” United Nations Environment Programme (UNEP), 2012.

There is no single model of the ‘green economy’, but multiple forms of locally specific green-economy activity. The key principle is that the ‘green economy’ is about seeking economic opportunities from socially and environmentally sustainable practices and vice versa.

Making the transition to the green economy in rural areas requires political will, technological developments and encouragement from market pressures. In practice, the transition is likely to take place through a sequence of progressive steps.

Although the term ‘green economy’ is not specifically mentioned as a European Union priority, a number of the EU’s headline priorities and sector-specific strategies and policies could form part of the green economy transition.

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**WHAT IS THE ‘GREEN ECONOMY’?**

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**MAKING THE TRANSITION TO THE GREEN ECONOMY**

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**THE GREEN ECONOMY AND EU POLICY**

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**RURAL DEVELOPMENT POLICY AND THE GREEN ECONOMY**

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## WHAT IS THE 'GREEN ECONOMY'?

This publication adopts the United Nations Environment Programme (UNEP) definition of the 'green economy'. This stresses the combination of economic, environmental and social objectives.

At the first meeting of the ENRD Thematic Group on the 'Transition to the Green Economy' in December 2015, members adopted the definition of the 'green economy' put forward by the United Nations Environment Programme (UNEP) in 2012 (see box). This edition of the EU Rural Review follows the same definition.

Put simply, the 'green economy' is one that promotes economic opportunities that are not in conflict with environmental sustainability and social well-being. It also promotes environmental objectives that can provide new forms of socio-economic opportunities.

The Thematic Group highlighted that the term does not mean that there is a single 'green economy' or that one model can be applied across Europe. Rather, there will be multiple forms and types of 'green economy' activity across the diversity of Europe's rural areas.

Other terms are also used to describe this kind of development, such as 'green growth'.<sup>1</sup> These terms describe new goals and dynamics in both policy and the (rural) economy itself putting an emphasis on economic growth that:

- is driven by low-carbon, energy and resource-efficient investments and practices;
- improves the resilience of ecosystems and rural practices to climate and economic change;
- at a minimum, prevents the loss of biodiversity and ecosystem services and fosters coherence between environment and economic growth; and
- is socially inclusive.

The concept has developed as a positive model for future economic growth that can be achieved sustainably, within the capacity of the earth's natural resources and minimising both environmental harm and the effects of climate change.<sup>2</sup>

The concept can also be seen as a response to various global financial, environmental, climatic and social crises. Questions have been raised about the soundness of traditional models of economic growth and their role in creating or worsening these crises.

### THE GREEN ECONOMY

“An economy that results in improved human well-being and reduced inequalities over the long term, while not exposing future generations to significant environmental risks and ecological scarcities.”

United Nations  
Environment Programme  
(UNEP)

### THE MULTIPLE BENEFITS OF THE GREEN ECONOMY

#### Environmental benefits

- Natural resources protected, conserved and enhanced
- Biodiversity and ecosystem services sustained
- GHG emissions reduced, carbon stored
- Climate resilience

#### Economic and social benefits

- Jobs and skills
- Production potential
- Efficient sustainable businesses
- New markets and products
- Economically viable and prosperous rural communities
- Social inclusivity



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(1) Defined by the OECD as: "Fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies." (Green Growth Report, 2011)

(2) Fedrigo-Fazio D and ten Brink P (2012), What do we mean by Green Economy?, Green Economy Briefing, UNEP. [www.ieep.eu/assets/964/KNOSSOS\\_Green\\_Economy\\_Main\\_briefing.pdf](http://www.ieep.eu/assets/964/KNOSSOS_Green_Economy_Main_briefing.pdf)

## MAKING THE TRANSITION TO THE GREEN ECONOMY

Making the transition to the green economy in rural areas requires political will, technological developments and encouragement from market pressures. The transition will take place progressively through a sequence of steps.

Key drivers of the green economy include policies undertaken at national, EU and global levels, and the emergence of new or more affordable technological innovations.

However, the market also has a powerful role to play. The preferences and decisions of consumers, retailers, tourists, processors etc. can have a major impact.

These political, technological and market forces exist in a state of ongoing dynamism. Changes in these dynamics in recent years are providing

a new momentum for change.

Amongst the many specific drivers of the transition to the green economy in recent times are: the new global agreement on climate change (the Paris Agreement); the Sustainable Development Goals (SDGs); increasing consumer preference for environmentally sustainable products; and innovation in renewable forms of energy from waste materials.

Research into the process of transition to a green economy has identified six building blocks for a transition from

a 'brown' to a 'green' economy (see Figure 1).

These building blocks form a sequence of steps from traditional or business-as-usual approaches through active environmental management to finally a growing recognition of the need to achieve true environmental sustainability through resource efficiency and the use of more innovative technologies and techniques, as well as looking at ways of altering demand.

Figure 1. Six Building Blocks in the Transition to a Green Economy



Source: Fedrigo-Fazio and ten Brink, 2012

## THE GREEN ECONOMY AND EU POLICY

Commitments to the transition towards a green economy are both explicit and implicit in many of the EU's strategic documents and sectoral policies.

The 'green economy' is not a headline term in the current EU priorities.<sup>3</sup> Nevertheless, green economy transition is a way of integrating a number of the stated priorities, for example the headline priorities around jobs and growth, and climate action.

The EU priority on '**Energy Union and Climate**' aims to ensure that Europe has secure, affordable and climate-friendly energy. It is based on the recognition that "wiser energy use while fighting climate change is both a spur for new jobs and growth and an investment in Europe's future".<sup>4</sup>

Under the '**Jobs, growth and investment**' Priority, one of the three main policy areas is the move 'Towards a circular economy'. It defines this as: "helping European businesses and consumers make the transition to a stronger and more circular economy where resources are used in a more sustainable way".

The European Commission has adopted an ambitious new '**Circular Economy Package**'<sup>5</sup> to support actions that contribute to 'closing the loop' of product lifecycles through greater recycling and re-use to extract the maximum value and use from all raw materials, products and waste.

More explicit reference to the green economy and its key elements can be found within the **Seventh Environmental Action Plan (EAP)**,<sup>6</sup> which is intended to guide European environment policy until 2020 and provides a long-term vision of where the European Union should be by 2050. It has the objective

### THE EU'S SEVENTH ENVIRONMENTAL ACTION PLAN

#### Key objectives:

- to protect, conserve and enhance the Union's natural capital;
- to turn the Union into a resource-efficient, green, and competitive low-carbon economy;
- to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing.

#### Approach

"The transformation into an inclusive green economy requires the integration of environment issues into other policies, such as energy, transport, agriculture, fisheries, trade, economy and industry, research and innovation, employment, development, foreign affairs, security, education and training, as well as social and tourism policy, so as to create a coherent, joined-up approach."

#### Vision

"In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society's resilience. Our low-carbon growth has long been decoupled from resource use, setting the pace for a safe and sustainable global society."



Living well, within  
the limits of our planet

to "turn the Union into a resource-efficient, **green**, and competitive low-carbon **economy**".

Without seeking to provide a comprehensive list, sector-specific strategies and policies at EU level that could be integrated through a green economy transition include:

- Climate and Energy
- Agriculture and Forestry
- Rural Development
- Jobs and Growth
- Waste Management
- The Circular Economy
- The Bioeconomy
- Food

- The wider environment, including water, biodiversity, etc.

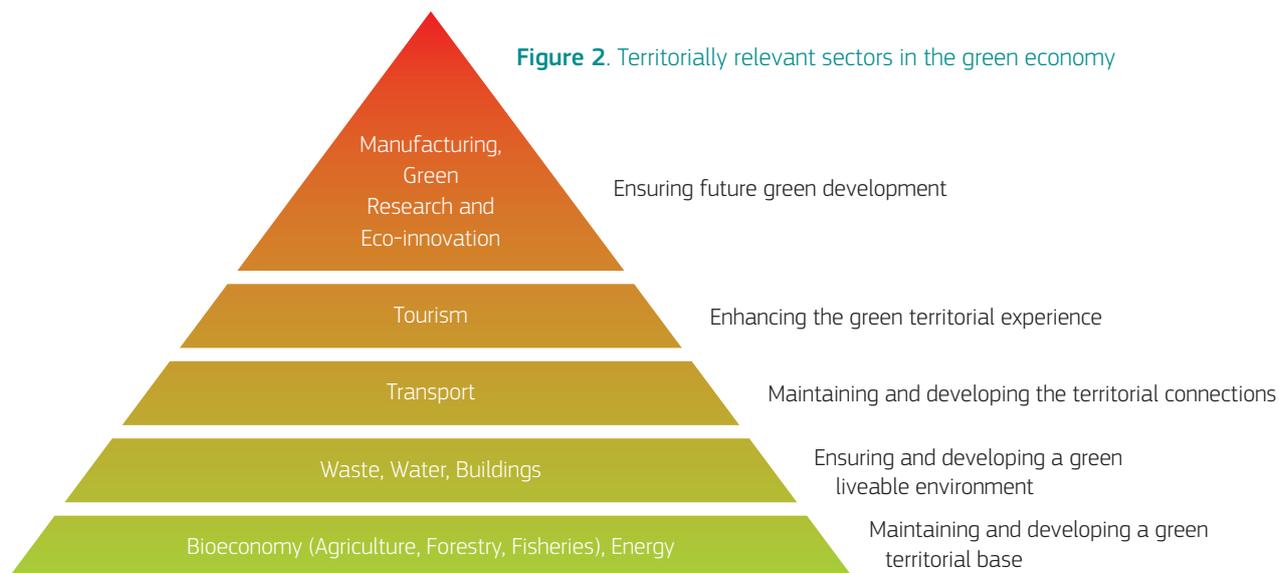
Not least in the list of relevant policy areas is **Rural Development** (see following page).

(3) As defined in the ten Juncker Priorities: [https://ec.europa.eu/priorities/index\\_en](https://ec.europa.eu/priorities/index_en)

(4) [https://ec.europa.eu/priorities/energy-union-and-climate\\_en](https://ec.europa.eu/priorities/energy-union-and-climate_en)

(5) [https://ec.europa.eu/priorities/jobs-growth-and-investment/towards-circular-economy\\_en](https://ec.europa.eu/priorities/jobs-growth-and-investment/towards-circular-economy_en)

(6) <http://ec.europa.eu/environment/action-programme>



Source: ESPON Evidence Brief 10, 'Understanding Green Economy', September 2014

## RURAL DEVELOPMENT POLICY AND THE GREEN ECONOMY

The Rural Development Programmes (RDPs) can be an important vehicle for enabling the transition to a green economy in rural areas.

There are numerous ways in which design and implementation of the RDPs can support the transition to the green economy. The range includes support for business activities that have 'green' credentials and support to improve the environmental performance of farmers and foresters.

In practice, nearly every Measure in the RDPs can be used to promote a wide mix of economic, environmental and social benefits that lie at the heart of the green economy. This can make the RDPs, if properly implemented, a very versatile instrument for promoting a transition to a green economy.

For example, the RDPs can support actions to deliver: efficiency in water and energy use; the supply and use of renewable sources of energy, by-products, wastes and residues; reducing greenhouse gas emissions; and fostering carbon conservation and sequestration in rural areas.

The RDPs can be used to reward farmers and foresters for their 'ecosystem services' and associated public goods. Meanwhile, Measures for business support and farm diversification can also be targeted to a greater or lesser extent on activities to support transition to the green economy.

For potential beneficiaries, RDPs can provide not just financial support but also much needed help in realising why carrying out activities that support a transition towards a 'green economy'

is a good idea and what the potential impact could be in their long-term business opportunities.

The following chapters consider some of the more specific areas of potential for the RDPs to contribute, and what good projects and cooperative approaches look like. It concludes with a consideration of how RDPs have been programmed to maximise their contribution to the transition to the green economy and what more could be done.

**Figure 3. 'Green economy' activities that can be supported via RDPs**

- Green technologies
- Waste management/reduction
- Sustainable water management
- Green tourism
- Sustainable buildings, services and infrastructures
- Investments in natural capital – e.g. wetlands, forests or flood plains
- Green and blue infrastructure providing ecosystem services
- Sustainable management of agricultural and forest land
- Climate adaptation
- Energy efficiency in production
- Renewable energy feedstocks
- Added value (from e.g. environmental certificates)
- Energy efficiency along the supply chain
- Green public procurement



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## 2. Moving to a low-carbon economy

The European Union recognises that moving to a low-carbon economy is essential for future prosperity and environmental sustainability.

The land-using sectors, unlike most others, provide the opportunity to provide a positive carbon balance through carbon sequestration and conservation in soils and biomass.

Other notable rural opportunities are provided by increasing efficiency of resource use and generation of renewable forms of energy.

The Rural Development Programmes (RDPs) can support rural businesses to implement such low-carbon activities, through Measures including advice and training (M1), farm business development (M6), afforestation and management of forests (M8 & 15) and investment support (M4).

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**THE LOW-CARBON ECONOMY**

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**CARBON IN THE RURAL ECONOMY**

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**STRENGTHENING THE RURAL CONTRIBUTION**

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**RURAL MODERNISATION AND EFFICIENCY**

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**RENEWABLE ENERGY**

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## THE LOW-CARBON ECONOMY

The low-carbon economy is about developing economic activity which has a minimal output of greenhouse gas (GHG) emissions into the biosphere.

A low carbon economy is one in which businesses, individuals and the environment prosper through the management and stewardship of carbon, using fuels more efficiently, storing carbon in soils and biomass, and using low carbon technologies to generate products, services and energy.

However, it is important to note that the term 'low carbon' refers to more than just carbon dioxide (CO<sub>2</sub>). It is used also to mean the reduction of all greenhouse gas (GHG) emissions, such as nitrous oxides and methane.

One of the main reasons for making this transition in society is to strengthen the contribution being made to climate change mitigation, something in which all sectors have a role to play.

### The EU's low-carbon economy roadmap

In March 2011, the European Commission defined a low-carbon economy roadmap, which suggests that greenhouse gas emissions in the EU should be cut to 80% below 1990 levels by 2050.

The two most important principles recognised by the roadmap are that:

1. The low-carbon transition is feasible & affordable.
2. All sectors need to contribute.

The roadmap sets out milestones to achieve the 2050 target:

- 40% emissions cuts by 2030
- 60% emissions cuts by 2040
- 80% emissions cuts by 2050

According to the European Commission: "Reducing emissions by 80% by mid-

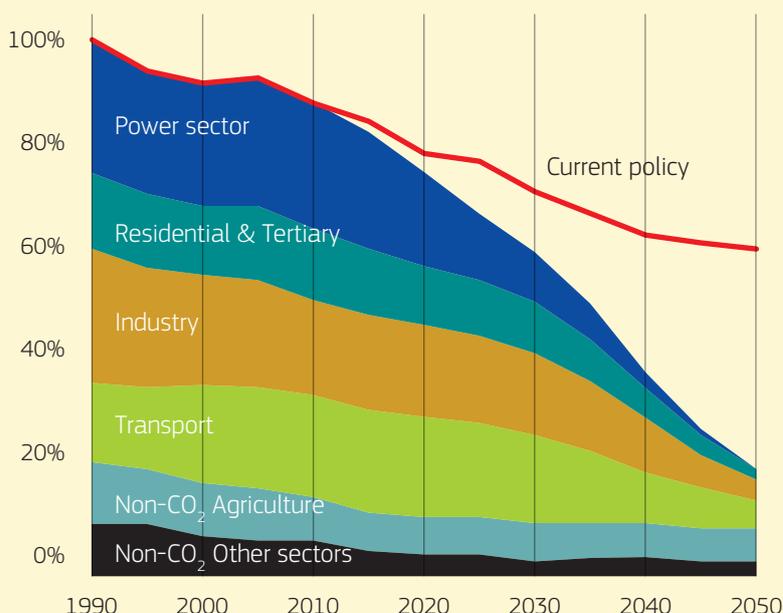
century will require substantial further innovation in existing technologies but does not require new 'breakthrough' technologies. [Existing technologies such as] solar, wind and bio-energy, smart grids, carbon capture and storage, low or zero energy homes [and] smart cities will form the backbone of the low carbon economy in 2050."

Action in all main sectors responsible for Europe's emissions – power generation, industry, transport, buildings, construction and agriculture – will be needed, but differences exist between sectors on the amount of reductions that can be expected according to their technological and economic potential.



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Figure 4. Possible 80% cut in greenhouse gas emissions in the EU by sector



Note: 100% = 1990 levels

Source: EU Roadmap for moving to a low carbon economy in 2050

## CARBON IN THE RURAL ECONOMY

Carbon is an essential part of any rural economy, providing the basis for production, commodities and energy.

Carbon provides the basis for agricultural and forestry production, in the form of organic matter in soils. Converted to biomass it forms commodities in the form of food, materials (such as hemp) and fibre (including wood and reed). It also provides energy in the form of fuels used to run businesses and machinery, and power homes.

But this dependence on carbon also brings with it some questions and challenges, such as how to maintain and increase existing carbon stocks, how to be more efficient in its use and what are the consequences of doing so.

### Low-carbon agriculture

When we talk about greenhouse gas (GHG) emissions from the agricultural sector, we are mainly talking about emissions of: methane ( $\text{CH}_4$ ) from livestock digestion processes and stored animal manure; and nitrous oxide ( $\text{N}_2\text{O}$ ) from organic and mineral nitrogen fertilisers.

Globally, agriculture is the single largest human-made contributor to non- $\text{CO}_2$  GHGs, accounting for 56% of emissions in 2005. In the EU, this contribution is much smaller at around 10%, although with significant variation between Member States (3 – 32%).

Looking at the specific sources of GHG emissions in the EU's agriculture sector, the share is divided between the following source categories:

- **agricultural soils (51%)** – nitrous oxide ( $\text{N}_2\text{O}$ ) in soils, attributable particularly to organic and mineral nitrogen fertilisers;

- **enteric fermentation (31%)** – methane ( $\text{CH}_4$ ) from the digestion processes of livestock;
- **manure management (17%)** – both  $\text{CH}_4$  and  $\text{N}_2\text{O}$
- **rice cultivation (0.5%)** –  $\text{CH}_4$ ; and
- **field burning of agricultural residues (0.2%)** –  $\text{CH}_4$ .

Separately from this, land management has other impacts on the carbon balance. On the one hand, there are further emissions, particularly of  $\text{CO}_2$ , from the use of machinery and equipment on farms. On the other hand, certain land management practices can release significant amounts of stored carbon from soils, forests and bogs.

Compared to other sectors, agriculture is expected to be able to make significant emissions reductions already in the period to 2030. However, after that point, further reductions will be more limited. Along with transport, agriculture is expected

At least 30 % of the budget of each Rural Development Programme must be reserved for voluntary, targeted measures that are beneficial for the environment and climate change.

to be one of the main sectors where no full decarbonisation is achieved, even in the longer term. (See table)

The overall level of emissions from agriculture has already declined since 1990 with proportionally greater reductions for  $\text{CO}_2$  than non- $\text{CO}_2$  emissions. However, the rate of decline has slowed in the last decade suggesting more action is needed to maintain the transition to a low carbon economy in the sector, and rural areas in general.



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## STRENGTHENING THE RURAL CONTRIBUTION

There are a great many opportunities for rural economies to both benefit from and contribute to making the transition to a low-carbon economy.

Land-using sectors are amongst the few which can have a positive carbon balance. This is because of the amount of carbon conservation and sequestration that can take place via the land, which can more than offset the emissions related to land use. Exploiting the potential to sequester carbon and reduce GHG emissions through better stewardship of soils and biomass is crucial. Doing so sustainably is especially important. Increasingly, Member States may look to their 'Land Use, Land Use

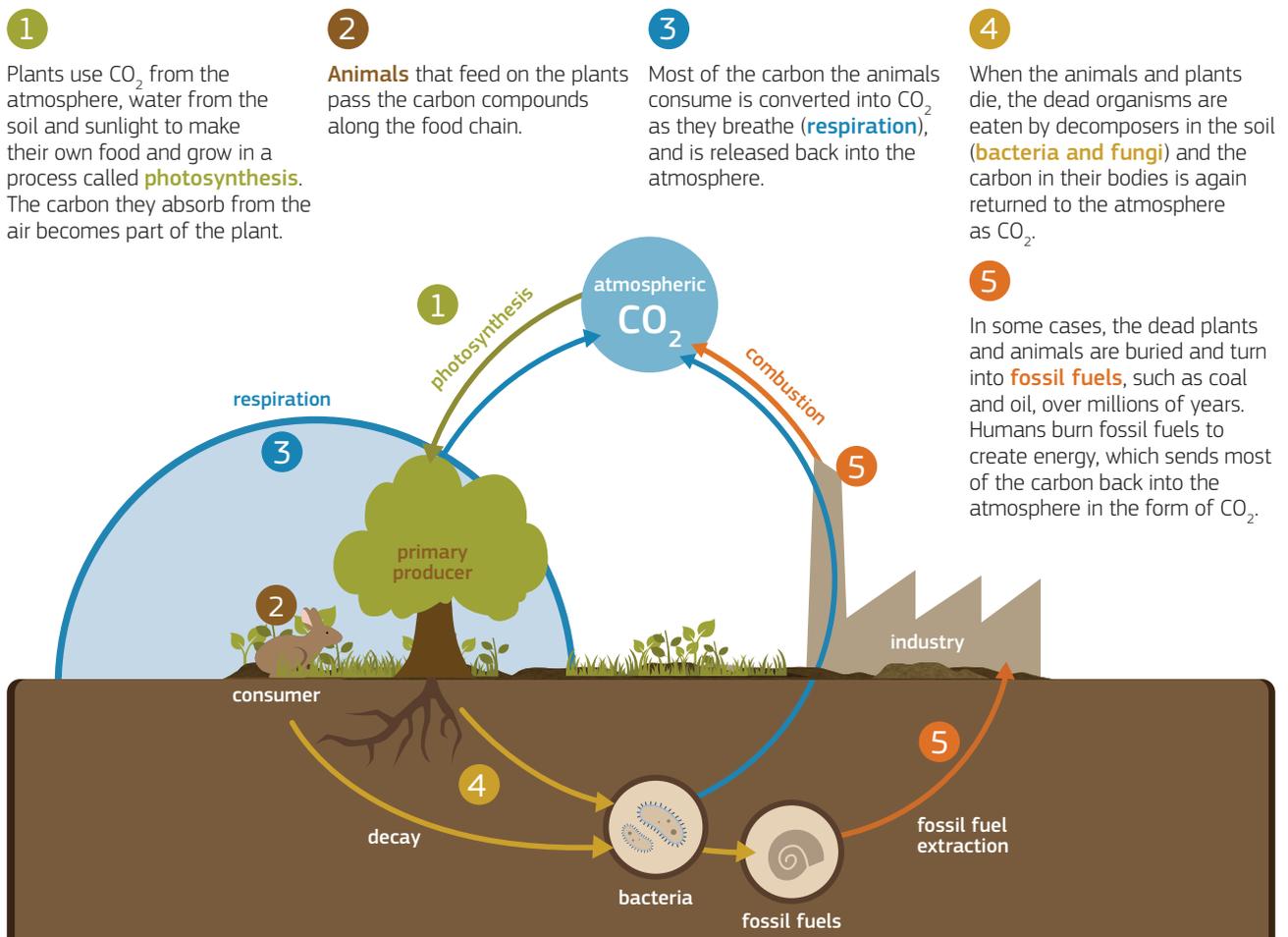
Change and Forestry' (LULUCF) sectors to make a contribution to climate mitigation efforts. These can also be supported through RDP Measures such as afforestation and management of forests (M8 & 15) and agri-environment-climate activities (M10).

This, along with greater resource and energy efficiency, will in turn help support rural businesses and become a strong selling point for 'green' products and low-carbon tourism as is being seen already across Member

States, such as the Koskis estate in Finland (see box p.18).

Effectively managing the carbon in ecosystems is not just about the environment. The low-carbon green economy takes this idea further to ensure that delivering an efficient and secure supply of low carbon energy delivers environmental, economic and social gains. It should make ecosystems healthier and more resilient or adaptable to change, meaning greater productivity and a more sustainable long-term future for the production sectors.

Figure 5. Soils and the Carbon Cycle



Source: FAO

## RURAL MODERNISATION AND EFFICIENCY

Technology developments and improvements mean that today it is possible to do more with the resources we have available.

Rural areas face specific challenges that are not seen in other areas of society. Often off-grid or with connectivity challenges, they can be more at risk from changing economic markets and prices.

For decades, fossil fuels have been relatively cheap, with liquid fuels even exempt from tax in some rural areas, however this is slowly changing and using less fuel and increasing efficiency in machinery is an increasing priority.

In this context, promoting low carbon actions as part of a transition towards green rural economies can often be about making the most of the resources available in a given area. Being efficient means getting more from less.

Many traditional practices and approaches have been developed over decades to save time, energy and ultimately money by getting the most out of the resources available, whether that has been through utilising residues, the way buildings are constructed, or even where rural communities are located.

Taking these ideas and practices and bringing them up to date with more modern equipment and techniques can help to breathe new life into traditional practices whilst making them more efficient, using less energy and fewer materials.

RDP support – such as that through advice and training (M1) or farm business development (M6) – can help to build capacity in achieving these aims.

The opportunities and benefits of improved energy efficiency and energy conservation may not be immediately

apparent because traditional and older buildings can be more difficult to insulate and more costly to modernise. However, once complete, they can save money and improve quality of life in the longer term.

The management of wastes can be better integrated into the whole production cycle using new techniques and technologies. Using fertilisers more efficiently, targeting them only to those areas that need it can save embedded energy as well as money. Such practices can make the farm more efficient, with reduced costs and lower carbon impacts (see box p.14).

Being more energy efficient, in all its forms, should increase the sustainability of rural businesses, reduce costs and even generate income. Yet one of the greatest benefits is the increased resilience of rural areas to external pressures,

whether this is a changing climate, more extreme weather events, or economic fluctuations.

The modernisation of rural economies can also mean changing the way we look at the land and resources available. As markets have changed over time, some areas are increasingly difficult to farm or forest profitably.

Diversifying rural businesses towards recreation, accommodation or other green and low carbon rural enterprises (supported through M6.4) or providing greater integration of rural businesses (M16) can help deliver a low carbon green economy whilst bringing in new income streams and avoiding inefficient practices. Cooperation between actors is an important aspect.



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**RESOURCE-EFFICIENT AND MODERN DAIRY FARM IN DÂMBOVIȚA COUNTY, ROMANIA**

Of the 2 000 dairy producers in Dâmbovița county, only seven are considered to be modern industrial farmers. The small size and subsistence or semi-subsistence nature of the farms means that manure management and composting processes on farms are a problem for the region. Ammonia emissions cause air pollution to nearby population centres.

Recognising the importance of integrating environmental, economic and social activities as part of the green economy, the project aimed to deliver on a number of related areas.

A new dairy farm was created with onsite facilities to produce cheese and other dairy products. At the same time, an onsite renewable energy unit (biogas) was integrated into the farm's development to both process the wastes arising from the dairy process (manure, waste milk, etc.) and produce energy (~250kW) to help run the farm and processing plant.

Traditional physical labour on the farm was reduced through the automation of production processes, including manure management and fodder delivery. However, other less physically demanding jobs were created in milk processing and operation of the new facility. This created job opportunities for a wider range of local people.

- **Project duration: 2011 – 2015**
- **Total budget: € 5 100 000**
- **EAFRD contribution: € 893 000**
- **National/regional co-financing: € 47 000**
- **Other sources: € 4 160 000 (including European Economic Recovery Plan)**

## RENEWABLE ENERGY

One of the main transition points in a low carbon economy is in changing the way we generate energy.

Rural areas and rural activities provide several interesting avenues for producing diverse forms of renewable energy. These can reduce costs for rural businesses, improve efficiency of resource use and serve wider societal needs.

Waste and by-products from rural production offer biomass resources that can be used for energy production. Landscape management wood can be used to provide a low-cost means of fuel for local communities (see example from Belgium) or energy generation.

Livestock manure has long been used as a fertiliser. However, whilst this is a very ‘natural’ process, without careful management its use can quickly cause nutrients to accumulate and present a problem for soil and water. If captured and used more effectively, manure can also provide a source of biogas and generate additional income. Various agricultural wastes, such as slurry,

manure, or crop residues can all be managed to produce fuels and energy (see example from Romania).

RDP support such as investments in physical assets (M4) or in basic services and village renewal (M7) can help to realise some of these benefits.

The integration of low carbon technologies into rural areas can also serve wider societal needs. As cities become increasingly crowded and require more and more energy, rural areas can provide the space to develop renewable energy infrastructure. Such

low carbon options include wind farms or solar arrays to generate energy. RDPs can support the development of new infrastructure to meet these needs (M7.2).

The important aspect for rural areas, is that the resources for generating renewable energy from waste, residues or modern infrastructure vary hugely throughout the EU. Some areas will have greater potential for solar energy, some wind, others a surplus of forest biomass or agricultural residues.



© Samenwerking voor agrarisch landschap (SVAL)

### ENERGETIC USE OF RESIDUAL WOOD FROM LANDSCAPE MANAGEMENT IN FLANDERS

A pilot project, set up by Samenwerking voor agrarisch landschap (SVAL) (the Cooperation for Agricultural Landscape Association) in 2012 aimed to improve the management of landscape elements in the region through enabling the collection and processing of residual wood for energy purposes – restoring a once traditional practice of using the wood to supply this need.

This was achieved through the purchasing of a specific wood chipper able to process the types of wood growing in the region. The aim was to bring the rural community closer together and be partly self-sufficient in heating fuel. The use of residential heating systems based on woody biomass can lead to significant carbon savings of around eight tonnes of CO<sub>2</sub> per year per residential installation (based on an assumption of 2 500 litres of heating oil per year). Excess biomass is used to supply local biomass energy plants.

With residual wood now providing local added value, there is an incentive for rural people to be involved in the management of their landscape and deliver a more sustainable and low-carbon source of energy. This also translates into considerable cost savings and a more secure supply of energy with less exposure to changes in wider economic markets.

[www.sval.be](http://www.sval.be)

- **Project duration:** 2012 – 2014
- **Total budget:** € 69 850
- **EAFRD contribution:** € 13 620
- **National/regional co-financing:** € 15 080 (Flemish) + € 16 700 (provincial)
- **Other sources:** € 24 450 (private funds and sponsors)



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## 3. Sustainable farming and forestry

An essential part of the transition to the green rural economy is making sure that the primary production sectors of agriculture and forestry are both economically and environmentally sustainable for the long-term.

This means not just ensuring that current good practice is adopted more widely, but taking innovative and imaginative approaches to the challenges facing the millions of farmers and foresters who manage more than 80% of Europe's land.

Rural Development Programmes (RDPs) can help to support the farming and forest sectors in making these sometimes difficult changes. This requires a longer term view of what sustainable production really means in a world where global markets are uncertain, weather patterns are changing and society expects rural land to provide a wide range of environmental services.

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**ADDING 'GREEN VALUE'**

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**EXTRACTING 'GREEN' ADDED VALUE**

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**EFFICIENT AND SUSTAINABLE USE OF RURAL LAND**

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**THE POTENTIAL OF MODERN AGROFORESTRY**

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**MANAGING FARMLAND AND FORESTS FOR CLIMATE CHANGE**

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## ADDING 'GREEN VALUE'

Adding 'green value' is about using the environmental benefits provided by a farm or forest in a way that adds economic value.

Opportunities to add 'green value' are provided by new and evolving markets for 'green' produce, often with a focus on the local area and reduced transport costs.

In many parts of Europe there are also locally specific farm products with the status of Protected Designation of Origin (PDO) – almost 700 products so far,<sup>1</sup> including meat, cheeses, wine, olives and nuts.

Organic products are well established and demand for them in the EU more than doubled in the ten years since 2004.<sup>2</sup> By 2014, 10.3 million hectares of agricultural land (5.9% of all agricultural land) was organic, up from 5.6 million hectares in 2002.

Environmental quality labels for agricultural products that attract a price premium in the market are

increasingly well known (see box). Recent examples include Natura 2000 labelling for produce from these protected habitats.

In the forest sector, Forest Stewardship Council (FSC) certification of timber products is an assurance of strict environmental, social and economic standards all the way along the supply chain from forest to final user.

Many of the new opportunities depend on combined action by groups of farmers or foresters – small producers working together to create a critical mass for processing and marketing, or adjacent landowners collectively providing improved environmental services in a river catchment.

The RDPs can be used to support such combined action in various ways. In England, facilitation funding

is made available under 'Countryside Stewardship', the agri-environment-climate scheme, to encourage farmer collaboration and landscape-scale delivery. In the Netherlands, all agri-environment-climate activities are now coordinated via 40 cooperatives with a focus on biodiversity, particularly to reverse the decline in farmland birds.

In Lower Saxony/Bremen in Germany, the Cooperation Measure (M16) is used to fund the formation of cooperative groups between farmers, local authorities and nature conservation groups to implement environmental activities. The activities can be funded under the agri-environment-climate Measure, non-productive investments Measure or conservation initiatives in Natura 2000 areas.



### GREEN ADDED-VALUE LAMB IN GERMANY

An initiative in the Altmuehltal region in Bavaria has added value to local production of lamb and wool products using the 'Altmuehltal lamb' quality seal.

For producers to be able to use the 'seal', more than half of the land used by the shepherds must be valuable areas for nature conservation. They must also use only locally produced supplementary feed, and follow guidelines for animal welfare, grazing density, and a ban on pesticide and fertiliser use. All project participants are subjected to the 'Altmuehltal Lamb quality assurance programme' with regular controls.

This creates a happy symbiosis between quality and environmental objectives. The grazing animals ensure that protected Natura 2000 habitats – juniper scrub on calcareous grasslands – are not overgrown with bushes and trees. Consumers are happy to know that the animals have been reared extensively and in ways that support the local environment.

The high-quality lamb meat and products are sold directly to local hotels and butchers, guaranteeing the shepherds a fair price.

[www.altmuehltaler-lamm.de](http://www.altmuehltaler-lamm.de)



© www.altmuehltaler-lamm.de

(1) See DOOR database at [http://ec.europa.eu/agriculture/quality/index\\_en.htm](http://ec.europa.eu/agriculture/quality/index_en.htm)  
 (2) [https://epthinktank.eu/2015/05/20/organic-food/eu\\_sales\\_growth/](https://epthinktank.eu/2015/05/20/organic-food/eu_sales_growth/)

## EXTRACTING 'GREEN' ADDED VALUE

Extracting 'green' added value often requires and/or leads to new forms of contact and relationship between producers and consumers.

Farmers' markets and farm shops are well-known ways to highlight green credentials in selling directly to consumers. In many areas there may be other opportunities for farmers to supply other groups of consumers on a regular basis, such as local authorities providing meals for schools, care homes and their own administrative offices.

An increasing trend is that many rural restaurants and hotels now emphasise their green credentials by using high-quality local produce. In Estonia, the Livivimaa Lihaveis initiative and trademark 'Beef of Livonia' has been developed to add value to grass-fed beef from different parts of the country. The initiative has recently started cooperating with 20 well-known Estonian, Latvian and Swedish chefs to use and market the high-quality beef in their restaurants.<sup>3</sup>

Farm and forest tourism is moving from simply providing accommodation to drawing visitors more closely into the work farmers and foresters do

on a daily basis. This provides an opportunity to explain to people where their food comes from and show them how it is produced.

In the Romanian Carpathian Mountains, the local farming community organises a haymaking festival every year, where visitors stay for a week and help to mow the hay on steep, flower-rich mountain pastures.

The Koskis estate in Finland has taken this one step further by making biodiversity a central aspect of their farm business (see box below).



© Koskis Gärd – Kosken kartano

### BIODIVERSITY CREATES BUSINESS IN FINLAND

The Koskis Estate in southern Finland has been owned by the same family since 1822 and the current owners, Helena and Fredrik von Limburg Stirum, manage 200 ha of farmland for certified organic beef production and approximately 1 400 ha of forest, growing mainly spruce, Scots pine and birch. They also produce and sell Luonnonlaidunliha (pasture meat) from grassland managed without artificial fertilisers.

When they took over the business in 2007, they had a clear vision of enhancing biodiversity as the basis for creating sustainable new local businesses. Much of the biodiversity work has now been completed, including: more than 7 ha of new wetlands established; 80 ha of semi-natural grasslands restored for use as pasture; and around 90 ha of forest dedicated as highly protected nature conservation areas as part of the Finnish Forest Biodiversity Programme (METSU).

The family now offers three different guided walking tours in the summer through the meadows and grasslands, amongst the grazing cows. In the spring, there is an open farm day, when the cattle go out from their winter housing to pasture. This event is very popular, bringing hundreds of local people to the estate, many of whom also buy beef products from the farm shop.

The latest venture is the Koskis 'adopt a cow' scheme, which lets people follow the daily life of an individual animal through scheduled visits, emails, Facebook updates and videos. The estate owners have more ideas, including developing conference and other meeting facilities on the estate.

[www.koskis.fi](http://www.koskis.fi)

## EFFICIENT AND SUSTAINABLE USE OF RURAL LAND

Using rural land efficiently and sustainably means protecting the soil and biological systems on which production depends.

From a short-term viewpoint, efficiency can simply mean minimising input costs while maximising output and unit price. This may work for an industrial manufacturer, but it is not a sensible or sustainable approach for a production system that depends not just on access to land but on the soil itself and the natural cycles of carbon, nitrogen and water.

Soil is a finite resource easily lost to erosion by wind and heavy rainfall. Growing the same crop year after year depletes soil nutrients and can create an unwelcome reservoir of pests and diseases.

In the short-term these problems can be overcome and yields maintained by using mineral fertilisers or plant protection products. However, these are expensive and overusing them can cause water pollution and damage to soil biodiversity (the micro-beasts, bacteria and fungi which process soil organic matter).

Increasing the sustainability of modern EU farming and forestry can require changes in land use and management, such as increasing the diversity of farm crops and changing the silvicultural system, which can have an impact on individual businesses in the short term.

Innovation and new technology can help, for example in reducing input costs through precision farming. This involves assessing plant needs through soil testing and surveillance of pest and disease outbreaks using remote sensing or drones. Agrichemicals can then be applied exactly and only where needed using machinery guided by GPS.



© Pixels

The development of the European Geostationary Overlay Service (EGNOS)<sup>4</sup> provides detailed satellite information to farmers. This service means farmers now have an affordable way of targeting field operations to

within one metre, helping them to maximise yields while reducing their impact on the environment.<sup>5</sup>

### PROVISION OF ENVIRONMENTAL SERVICES

Direct provision of environmental services from farmland and forests is an emerging opportunity to add green value.

Forests and trees planted on farmland in river catchments and floodplains can help to reduce the flood risk for towns downstream. Planting strips of nectar producing wildflowers on arable land can help to alleviate the decline of bees and other essential pollinating insects. Rewetting drained peatlands in some upland areas has been shown to improve the quality of domestic water supplies.

At present in the EU, environmental services such as these are largely paid for by public funds, often using RDP environmental investment support or agri-environment-climate contracts. In other parts of the world these “payments for environmental services (PES)” are more often funded by the commercial sector, for example by water companies. Some water companies in the EU are already taking this approach, such as Volvic and Evian in France and United Utilities in the UK.

(4) [www.gsa.europa.eu](http://www.gsa.europa.eu)

(5) [https://www.egnos-portal.eu/sites/default/files/uploads/EGNOS\\_agriculture\\_brochure\\_0.pdf](https://www.egnos-portal.eu/sites/default/files/uploads/EGNOS_agriculture_brochure_0.pdf)

## THE POTENTIAL OF MODERN AGROFORESTRY

Integrating woody vegetation with crop and/or animal systems can provide interesting ecological and economic benefits.

An interesting emerging development in Europe is the adaptation for the 21<sup>st</sup> century of the traditional practice of deliberately integrating trees and/or shrubs with crop and/or animal systems for the resulting ecological and economic benefits.

Agroforestry essentially provides two production systems on the same area of land with a tree crop above or alongside pastureland or arable crops. Depending on the system chosen there can be benefits for increased overall productivity per hectare, soil quality, water management, pest and disease control and wildlife.

Such practices still exist in their traditional form in Spain and Portugal where there are millions of hectares of *dehesa* and *montado*, well adapted to the local soils and the dry climate. But they are now emerging in new forms.

On a hillside in Westouter, Flanders, an organic cattle farmer has established a three-tier agroforestry system on his pasture land.<sup>6</sup> He began by creating a series of ditches and berms (a level space or raised barrier) along the contours. The ditches slow down water and nutrient run-off, while high stem fruit trees planted on the berm anchor the soil and act like a free water pump for vegetable crops and berry bushes planted between them.

Preliminary results from the EU research project 'AGFORWARD' have identified more than 10 million ha of existing agroforestry in Europe in both new and traditional systems.<sup>7</sup> This area may increase as a result of RDP support for new agroforestry systems.

**Table 1.** Agroforestry systems in Europe

System	Country	Extent (ha)
<b>Mediterranean oak tree agroforestry</b>	Dehesa in Spain	3 606 151
	Montado in Portugal	1 059 000
	Grazed woodlands and oak and other agroforestry on agricultural land in Greece	1 895 583
	Pyrenean oak in Spain and Portugal	122 000
	Grazed oak woodlands in Italy	279 263
	<b>Sub-total</b>	<b>6 961 997</b>
<b>Other wood pastures and meadows</b>	Larix decidua in Italy	102 319
	Lövängar, hagmarker in Sweden	100 000
	Other parklands, woodland, wood-pasture, Hudewald, Haka and metsälaidun in UK, Germany, Austria, Switzerland, Hungary, Finland	200 320
	<b>Sub-total</b>	<b>402 639</b>
<b>Reindeer husbandry</b>	Finland, Sweden, Norway	<b>41 400 000</b>
<b>Hedges and scattered trees</b>	France and parts of UK and Belgium	<b>472 074</b>
<b>Agroforestry ...with fruit trees</b>	Germany, Switzerland, Austria, Romania, Croatia, Czech Rep, France, UK, Denmark, Italy, Greece, Poland, Portugal	1 226 867
<b>...with olives</b>	Portugal, Greece, France, Italy, Spain	538 865
<b>...with pine-trees</b>	Italy, Portugal	535 842
<b>...with vines</b>	Italy, Spain, Portugal	275 635
<b>...with chestnuts</b>	Portugal, France, Italy, Greece, Hungary, Romania, Slovakia, Slovenia, Spain and Switzerland	111 083
<b>...with carob trees</b>	Italy, Portugal, Spain, Greece	92 200
<b>Sub-total</b>		<b>2 780 492</b>
<b>Shelterbelts</b>	Hungary	<b>16 415</b>
<b>Alley cropping</b>	France	<b>6 300</b>
<b>Trees with livestock</b>	Netherlands	<b>3 000</b>
<b>Total</b>		<b>52 042 917</b>
<b>Total (excluding reindeer)</b>		<b>10 642 917</b>

Source: Preliminary stratification and quantification of agroforestry in Europe, Agforward

## MANAGING FARMLAND AND FORESTS FOR CLIMATE CHANGE

The farming and forest sectors have a unique role to play in achieving the EU's objectives around climate change.

The European Commission's proposals on future EU accounting for LULUCF (Land Use, Land Use Change and Forestry) highlight the increasingly important role of both farming and forestry in meeting the EU's climate targets.

The contribution of farmland to mitigating climate change through **reducing GHG emissions** is widely discussed, particularly in the context of methane emissions from ruminant livestock systems, and nitrous oxide emissions from soils and manure.

On-farm actions to reduce emissions may also improve business efficiency through reducing input costs, although this can require initial investment (some of which may be supported through RDPs). For example, using reduced tillage techniques, precision application of fertilisers and recycling crop and animal waste through composting or anaerobic digestion can all be 'win-win' for farm businesses and climate change mitigation.

The farming and forest sectors also have a unique role to play in **increasing GHG removals from the atmosphere** through carbon sequestration in soils and vegetation, as well as maintaining existing important carbon stores – for example in peatland.

Approaches such as converting peat-rich arable soils to grassland to halt the loss of carbon (through oxidation) and improve carbon sequestration are interesting but may be difficult to achieve.

Less often mentioned, but well understood by those who are experiencing it, is the effect that a changing climate is already having on

Europe's farms and forests. There is an urgent need to take action now to **adapt production systems** so that they are resilient to current and future effects of climate change.

Adapting to the effects of climate change will differ for farms across Europe – in the north there will be business benefits from a longer growing season and the opportunity to grow a wider range of crops in a warmer climate, although in some places this will come alongside greater risks of flooding and storm damage. Further south, water conservation and re-use will be a priority for farmers, particularly those depending on irrigated systems – for example in fruit and vegetable production.

Climate change adaptation issues are particularly urgent for forests, where the production cycle can be 60 years or longer. Changes in temperature and rainfall are expected to increase the risk of forest fires, storm damage and spread of pest species.

In forestry, climate change mitigation and adaptation actions are more closely linked, simply because the mitigation effect of forests in terms of carbon sequestration in both the trees and the soil depends on the

long-term survival of the forests. Fire is particularly damaging, releasing carbon dioxide whilst destroying the forest.

Improving the resilience of Europe's forests to climate change requires a more diverse mixture of both tree species and types of management in individual forests – for example smaller felling blocks and trees of different ages in the same stand. RDP forest Measures can be used to support such changes.

In Scotland, the increase in timber production provides an opportunity to use RDP funding to support modern forest management planning to create well-structured and diverse forests giving greater species diversity with the replanting of a much increased area of native broadleaves.

Increasing the genetic diversity within individual types farm crops and forest trees is another important adaptation action which can help to address problems of pests, diseases and changing weather patterns.

All these actions form an important part of a shift towards a greener contribution of the land based sectors to the economies of rural areas.





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## 4. Green economy projects: what we know

Across the EU, there are many practical examples of activities which embrace the principles of the green economy in rural areas. The ENRD Thematic Group on the Transition to a Green Economy identified more than 40 such projects, several of which were supported by Rural Development Programmes (RDPs).

Thematic experts in the group studied the examples to draw out common experiences about what green economy projects look like and what steps need to be taken to deliver them. This in turn helped identify the challenges to be overcome and the keys to success.

Promoting the right projects can be about strengthening existing good practice or more fundamental changes to the way rural economies operate. When making these changes, it is important to bring others along the journey and allow sufficient time for people and businesses to adapt. The RDPs can provide crucial support to such processes and activities.

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**WHAT DO GOOD GREEN ECONOMY PROJECTS LOOK LIKE?**

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**WHAT ARE THE KEY STEPS IN THE DEVELOPMENT OF GREEN ECONOMY PROJECTS?**

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**OVERCOMING COMMON BARRIERS**

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**SUCCESS FACTORS FOR GREEN ECONOMY INITIATIVES**

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## WHAT DO GOOD GREEN ECONOMY PROJECTS DO?

The ENRD Thematic Group identified a number of key features and characteristics of good projects that support the transition to the green economy.



### Respond to demand

They are demand-driven, responding to gaps in the market, social concerns or economic opportunities.



### Target environmental objectives

They have clear, tangible and economically sustainable environmental objectives.



### Balance economic and social objectives

They take a systemic approach, including the economic and social benefits that can be achieved.



### Innovate

They involve new products, new services, new technologies, new business models and/or smart adaptations or combinations of old ones.



### Involve multiple actors

They engage and motivate key people from all relevant spheres – public, private and community – from production through to consumption.



### Lever in public and private support

They explore a variety of funding sources and seek to avoid dependency on grants.



### Evolve

Projects grow, evolve and adapt to changing environments and their own successes and failures.



### Enable future learning

Environmental, economic and social objectives are clearly specified and monitored, enabling results-based learning for the future.



### Communicate results

They communicate their successes and achievements, to encourage others.



### Change mindsets

They demonstrate that there need not be any conflict between economic, environmental and social objectives.

## WHAT ARE THE KEY STEPS IN THE DEVELOPMENT OF GREEN ECONOMY PROJECTS?

The ENRD Thematic Group identified the key steps that need to be taken to develop green economy projects from the initial idea to scaling up good practices.

Ideas phase

**1. Assess all the opportunities** in your field or area. What are the unmet environmental needs? Are there ways of turning these into viable activities over time? What are the barriers? Are there inspiring examples of overcoming them elsewhere?

**2. Set realistic and time-bound objectives** in the three areas of a green project i) environment ii) the economy and iii) society. Recognise it may take longer than you think to cover costs – but there may be smart business and financial models that speed this up.

**3. Access good information and advice** from specialists but also from people who have tried something similar. Turn this into a sound business plan.

**4. Map out the environmental, economic and social impacts of the project.** There has to be good evidence of the benefits of the project to attract public or private finance, as well as support from potential partners, suppliers, distributors and customers.

**5. Test the idea** as a prototype or at a very small scale to explore both environmental and economic assumptions.

**6. Assess different sources of funding** – private, public, community – taking into account the conditions and flexibility of each.

**7. Build trust with stakeholders** be they investors, suppliers, public authorities, partners or customers. Trust is earned by face to face contact and sticking to both written and verbal agreements.

**8. Plan the steps required along the supply chain.** Not everything can be done within each project, but it is important to test the market and know that the resources, logistics and technical capacities are available to get there.

**9. Promote the project.** Good examples can catch on and build support like wild fire. Face to face contact is essential, but use all channels available.

Piloting & Small Scale Production

Reviewing and scaling up

**10. Scale up.** There are various ways of accessing the logistics, technology, finance and skills required to reach a bigger public. These include various forms of cooperation and collaboration.

## OVERCOMING COMMON BARRIERS

The ENRD Thematic Group identified some key challenges to the implementation of successful green economy projects and approaches to overcome these.

### CONFIDENCE

- Taking that first step and maintaining momentum in a new project, or even persisting with a traditional practice or approach takes confidence. Going it alone can be difficult and the risks can feel great.

+ Sharing these risks through **cooperation** with others and having the **support of administrations** and commitment of funders has helped to overcome the issue of confidence in many green economy examples we have seen.

### NEW GROUND

- Developing new ideas, processes or approaches can be uncertain. Sometimes an initiative takes longer to implement than planned, and can change as a result of seasonal impacts, policy developments, or funding priorities.

+ Ensuring **sufficient administrative, expert and financial support** both at the start and throughout its implementation is important to take an initiative beyond the establishment phase. Sometimes it is simply a case of ensuring that there is enough time for an initiative to develop.

### TIME

- New green economy initiatives often require longer timeframes to become established than the seven-year programming periods and reporting frameworks that exist under RDPs.

+ Developing a new approach may need to be **done in stages** in order to be consistent with the different reporting and funding periods of the supporting instruments that are used.

### FINANCING

- Finding financial support to develop a new idea or maintain an approach that is struggling is always a challenge. The need to secure co-financing, particularly for new and novel approaches, can make investors feel nervous and unwilling to take risks. Initial investment costs can be high, particularly where new infrastructure is needed. Where financial support is available, it often comes with a series of rules that may seem restrictive or not suited to a new idea.

+ Generating **grant or crowd funding** has been used as a way of building more flexible capital than that which may come from a bank or more traditional source. Where available, **own finances** have been used, at least in the initial phases, to demonstrate proof of concept and build trust with other investors. Of course, this is not possible or desirable for everyone, and others have used **development loans**, which are designed for less certain projects, with good success.

### SUPPORT

- Tools, such as advice, information or investments designed to help support the development of new initiatives, or maintain ongoing activities are almost always generic or may be limited to specific types of activities or sectors. What is and is not supported through a particular instrument can be a barrier to developing a new initiative, particularly where this is cross sector or involves novel activities.

+ Having a more **diverse range of funding**, supporting tools, advice and information can provide the flexibility and scope to cover different aspects of new initiatives as they develop.

## SUCCESS FACTORS FOR GREEN ECONOMY INITIATIVES

The ENRD Thematic Group identified the key success factors that determine the quality of projects supporting the transition to green rural economies.

**D**eveloping green rural economies in practice is as much about maintaining existing good practice as it is about developing new ideas and opportunities.

Projects and initiatives that have been successful often share similar characteristics, such as: cooperation between different actors; an individual with the vision, drive and enthusiasm to see it through; and learning from other examples through good communication and sharing of knowledge.

**Champions** – The most common success factor of any green economy initiative is a project champion. Whether this is a person or a group of people, it is their commitment and drive that keep projects alive, persuade other actors that the project is viable and worth supporting, and drive the initiative through to success.

**Synergies** – Combining environmental, economic and social objectives is at the heart of the green economy. Creating synergies between these objectives has helped initiatives develop coherently, balancing the need to generate income and jobs whilst respecting the environment and resources used. This has enabled those initiatives to connect a greater number of actors and be more sustainable and resilient in the longer term.

**Cooperation** – The resilience of an initiative is strengthened when different actors work together, where everyone has a shared interest in seeing a project succeed and where people from different areas, backgrounds and sectors bring new and different ideas and experience.

**Sharing and communication** – Sharing experiences, knowledge and good practice is essential, not just between actors involved in the same initiative, but with those looking to develop a similar approach elsewhere or a new idea entirely. Communication during the project is important to ensure that the goals are clear, explain how the benefits will be shared and provide support and advice to those who need it. Communicating the successes of the project, as well as what did not work and how barriers were overcome is also valuable.

**Support and Advice** – Support and advice can come in many forms and what is appropriate will depend on the initiative being developed. Financial support is often the first consideration in developing a new initiative or keeping one alive, yet technical and operational support can be just as important, filling knowledge gaps or helping to interpret rules and regulations. Sometimes it is just a case of moral support, knowing there are others who have a shared interest and willingness to work together.

**Experts** – Sometimes new initiatives require specialist skills, such as the design of a new facility or setting up of a network of suppliers and producers. Drawing on the advice and experience of experts can play a key role, particularly at the design and development stages.

**Existing resources and skills** – Many successful green economy projects have focused on using and enhancing the skills and resources they have available, developing initiatives that use and promote natural and human capital in a

sustainable way. Making the most of existing strengths, skills and abilities can make an initiative more resilient in the long term.

**Space and Time** – Getting an idea off the ground takes time, finding synergies, building cooperation, securing support and expertise. Having the scope to develop an idea and the time to trial different approaches, adapt and progress is essential. Having flexibility in the way financial support is designed and provided is particularly important, as this often requires reports on progress before ongoing commitments are made.

**Flexibility** – Developing an idea is not always a linear process, sometimes ideas change and lessons learnt through the initial stages can mean changes to the original idea. Even if the idea remains good, the policy, social, technical, economic environment can all change around it. Building in the flexibility to adapt and develop constantly is important (matching new priorities etc.).

**Conclusion** – Learning from these key factors can help ensure successful green rural economy initiatives are realised in practice.



## 5. Cooperation – achieving more together

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Cooperation has particular potential to support the transition to the green economy. due to the need to balance multiple interests and objectives. Overcoming any potential or perceived conflicts between different fields of activity can be achieved by bringing stakeholders together in a common cause. Effective use of the Cooperation Measure can therefore be an important element of a shift in rural areas towards greener and more sustainable economies, helping individuals to achieve more by working together and through these activities developing a greater sense of community and identity. Cooperation can usefully take place across sectors – such as between researchers, private companies and local authorities as well as at landscape level, bringing social, economic and environmental interests together to achieve benefits for all. Green clusters and green hubs in rural areas can facilitate such cooperation.

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**COOPERATION-BASED APPROACHES**

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**MANAGING LAND AT LANDSCAPE LEVEL**

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**GREEN CLUSTERS AND HUBS**

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## COOPERATION-BASED APPROACHES

Cooperation can be an important driver of the transition towards greener rural economies.

Green rural economy initiatives operate at a variety of scales. Some can be small, such as a single producer marketing their produce locally, whereas others can stretch across landscapes and even country borders.

Cooperation is particularly important for the transition to the green economy where the activities being promoted require links to be made between different sectors and resource streams, or where the issue being addressed extends across boundaries.

Bringing together the collective knowledge and resources of different individuals and different sectors can yield real benefits, such as the potential to develop and access new markets, engender environmental good practice across different users, as well as increased negotiating power allowing rural communities to take ownership of initiatives.

There are different forms of cooperation to help rural economies operate in a greener and more

sustainable way, from formal cooperatives working together, more informal groups of individuals working towards a single goal, different sectors working together, or dedicated clusters.

Individuals from the same sector may be brought together to tackle a specific issue that could not be achieved through the actions of one person alone, such as where nearly €2 million of EAFRD support was used to improve flood defences through Dike Upgrading at Otterstadt/Waldsee in the upper Rhine.

Different sector representatives may also come together where there is an opportunity to develop new supply and production chains, where the output of one producer (e.g. bread) is used by another (e.g. café) as part of its business. One interesting example of such an approach takes place in Finland in Palopouro where different rural businesses and resource streams have been integrated (see box p32).

Cooperation has received new attention in the form of Measure 16 in the 2014-2020 RDPs<sup>1</sup> with a

particular focus on the creation of clusters and networks, and the establishment of Operational Groups as part of the EIP-AGRI network.<sup>2</sup> There are particular opportunities for establishing cooperative approaches between different rural actors and combining with other RDP Measures, such as agri-environment-climate, to deliver increased added value.

The opportunities offered by the Cooperation sub-Measures was explored in an ENRD workshop in June 2016 including addressing different objectives, guidelines on the Measure, and existing examples of how RDPs had used it in practice.<sup>3</sup>



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### COOPERATING IN OLIVE OIL RESEARCH IN ITALY

A private olive oil mill used RDP support to develop a cooperation-based research project 'IVO' to test a greener filtering prototype for olive oil production. The project saw collaboration between the University of Florence, the regional chamber of commerce in Tuscany, machinery companies and others.

The new filtering system was installed in the mill and tested for two years. All members of the partnership were involved in testing the new prototype against conventional filtering systems for four different types of olive oil.

The tests demonstrated that the new steel filters can be used for double the lifetime of conventional filters, reducing environmental impact and costs. The filters also reduced the volume of olive oil lost during the filtering process. Finally, analysis of the oil samples found that they maintained

their quality standards for longer, avoiding oxidation. Each of these aspects can support the transition to the green economy by reducing waste and increasing profits.

The project was part of a broader experience of working together amongst the partners. They have found that building upon common interests and well-established linkages is a key factor for successful cooperation.

[www.olioolcastoscana.it](http://www.olioolcastoscana.it)

- Total budget €167 000
- EAFRD €66 000
- National/Regional €85 000
- Private €16 000

(1) Under Article 35 of Regulation (EU) No. 1305/2013 on support for Rural Development by the EAFRD

(2) [www.eip-agri.eu](http://www.eip-agri.eu)

(3) [http://enrd.ec.europa.eu/news-events/events/enrd-workshop-measure-16-cooperation\\_en](http://enrd.ec.europa.eu/news-events/events/enrd-workshop-measure-16-cooperation_en)

## MANAGING LAND AT LANDSCAPE LEVEL

It can be more effective to manage land at the landscape scale to address challenges that are transboundary in nature.

Rural areas are often typified by their landscapes, whether this is the towering peaks of the Alps, the great Hungarian plains, or the silvo-pastoral *montado* and *dehesa* landscapes that characterise southern Portugal and Spain. These can provide an important foundation for green rural economies, inspiring the marketing of local and regional produce as well as tourism activities.

Issues such as climate mitigation and adaptation, flooding, wildlife and pollution all require action on the part of multiple individuals and at different spatial scales. Cooperation is not a prerequisite for all the individuals to do what is required for effective management. Nevertheless, it can greatly enhance the chances of success.

The easiest way to think about this challenge is to imagine a river, starting high on a hill at the head of the water catchment, passing through a forest on the slopes of the hill, before widening into the flatter farmed lowlands. Those who own and manage land along the banks of the river can have an impact on others either upstream (where flood protection may cause water to back-up) or downstream (where pollution may flow). Cooperation throughout the wider river catchment can improve the delivery of targeted and consistent responses to safeguard water quality and availability.

This same principle of transboundary management applies equally to all types of habitat and species management where scale is a key factor. Highly mobile species that range or migrate over large areas, such as birds, need management at

different points in the landscape, such as breeding or nesting areas that may fall under the responsibility of different land managers (see box below).

Even shorter ranging species can benefit from a collective approach, through the introduction of landscape elements, such as hedgerows, to help increase habitat connectivity within landscapes and allowing wildlife to move. The maintenance of productive areas can also benefit from a collective response.

Protecting characteristic rural landscapes can also provide business opportunities in the green economy, where they are used to promote sustainable economic activities, such as green tourism or adding value to

products (see also Article 3). Here collective approaches can add value, for example through creating a network of individuals or businesses – such as restaurants, accommodation facilities, tour operators and guides – to promote the landscape and its enjoyment through the products and services it provides.

In Belgium, these sorts of coordinated promotional activities have been developed through websites promoting the forested landscapes in and around Belgium, including the forests of Chimay, Ardenne, Anlier, Saint-Hubert and Semois et de la Houille (see box p.30).



### THORNEY FARMLAND BIRD FRIENDLY ZONE (TFBFZ), UK

TFBFZ was set up as part of the RSPB Fens Futurescape initiative, a much wider initiative which aims to enhance the populations of farmland birds across the Fen landscape in the East of England. The project has brought together a group of 17 farmers to implement an optimal mix of agri-environment options for the benefit of farmland birds across a contiguous area of mainly arable farmland in Cambridgeshire. Over 7 000 ha of farmland is covered by the initiative which has seen notable increases in bird numbers as a response.

Approximately €200 000 of RDP support was provided through the agri-environment Measure in the 2007-13 programming period. This covered agreement for the 17 farmers involved.



### GREEN TOURISM IN THE FOREST LAND OF CHIMAY, BELGIUM

Thanks to this initiative, a wide range of different local actors took part in joint efforts under a common vision to boost the local economy and further facilitate the development of new attractions for visitors based on the natural values of the area. It involved two local tourism offices, a Nature Park, municipalities, local clubs and restaurant owners.

Based on an initial assessment of local opportunities and potential, the project funded the development of tools and services including:

- mobile apps that allow users to download more than a hundred walks searchable by certain criteria and detailing information on the landscape and heritage landmarks;
- an events programme featuring weekend nature activities, an introduction to geocaching, theme discovery hiking,

a park festival in Viroin-Hermeton, nature workshops for children and adults, competitions and a photo exhibition;

- tools to promote existing attractions and infrastructure, such as 178 km of marked trails and nine bivouac areas for wilderness camping.

[www.foretdupaysdechimay.be](http://www.foretdupaysdechimay.be)

- **Project duration: 2007 – 13**
- **Total budget: € 485 000**
- **EAFRD: € 194 000**
- **National/regional: € 194 000**
- **Private: € 97 000**

## GREEN CLUSTERS AND HUBS

Within the EU, some of the really interesting cooperative approaches are where different actors and sectors come together to develop new supply chains and business models.

**G**reen clusters and green hubs can be useful practical ways of facilitating cooperation amongst rural stakeholders in support of green economy activities.

Although the distinction between a 'cluster' and a 'hub' is sometimes blurred, frequently a hub is a physical centre from which cooperation or interaction is coordinated or facilitated. Meanwhile, a cluster is a geographic concentration of interconnected organisations, businesses or other bodies.

### Green Hubs

Hubs often take the form of industrial units or spaces where different processors and producers can come together to exploit new and complementary resource streams. They can also include a diverse range of actors, including universities and research institutes, business organisations, producers and other local entrepreneurs.

For small operators or businesses, green hubs can be an important way

to reduce costs and enable them to develop new markets and initiatives through access to specific facilities.

Examples of green hubs, include:

- **Innovation centres** such as one in Finland where TEKES, a publicly funded financier of R&D and innovation, each year supports some 1 500 business R&D projects, and 600 public research projects with a focus on low energy consumption and sustainable use of natural resources.

- **Multipurpose buildings** for social activities such as the Multifunctional Centre Tollebeek in the Netherlands that provides a communal space for medical, sporting and social services. The centre also functions as a meeting place allowing locals to interact, relax and have fun.

## Green Clusters

Green clusters can be an important part of helping rural communities become more sustainable. This form of cooperation, helps to strengthen links between different actors and promote sustainable activities that can benefit green rural economies and capitalise on local resources and skills.

They have played a particularly important role in the development of bioeconomy initiatives (bioeconomy clusters) where new and novel uses for raw materials and wastes have been trialled.

Proximity is an important aspect of rural clusters, but different actors do not need to be co-located in order to cooperate on sustainable rural projects. For example the reprocessing of agricultural wastes, such as manure and slurry can take place across significant distances, such as in the Biogas Brålanda facility in Sweden (see box below).

Cooperation of this kind is helping to generate added value from what

would otherwise be a wasted resource, whilst helping to manage and reduce wastes in the rural environment.

Seen as a whole, green clusters can integrate multiple aspects of the rural economy, from production, manufacturing and processing, marketing and promotion and the collection and reprocessing of waste. Here rural actors work together through integrated supply and marketing chains and thus develop greater access to new or selected markets and promote a more integrated and circular approach to developing green rural economies in practice.

An example of a green cluster is The Arctic smart rural communities cluster in Lapland – which sees local networking of energy, food and business activities owned by local people, farms and firms.



© Biogas Brålanda



### BIOGAS BRÅLANDA, VÄSTRA GÖTALAND, SWEDEN

Brålanda was the first area in Sweden to produce biogas in several local farm facilities that are all linked together in a common grid. It combines both small-scale flexibility and large-scale efficiency.

Each farm facility is owned and operated by one or more farms. From these facilities, large volumes of raw gas are transported via pipelines to an upgrading plant and then on to the tank fuelling station in Brålanda. Here vehicle gas is filled into larger tanks for distribution to different parts of the country.

The grid is owned by Mellerud and Vänersborg municipalities together with the company Biogas Brålanda AB, which is responsible for upgrading and distribution. Biogas Brålanda

AB is jointly owned by an energy company from a nearby town and Biogas Dalsland Economic Association (a farmers' cooperative with 18 members).

The success of the biogas production and management of waste is put down largely to the spirit of good and close cooperation between the farmers and other stakeholders who are keen to improve the environment using a business approach. RDP investment support has been essential to the project, which has generated cheaper energy, reduced GHG emissions and added value to farmers from their waste manure.

[www.biogasbralanda.se](http://www.biogasbralanda.se)



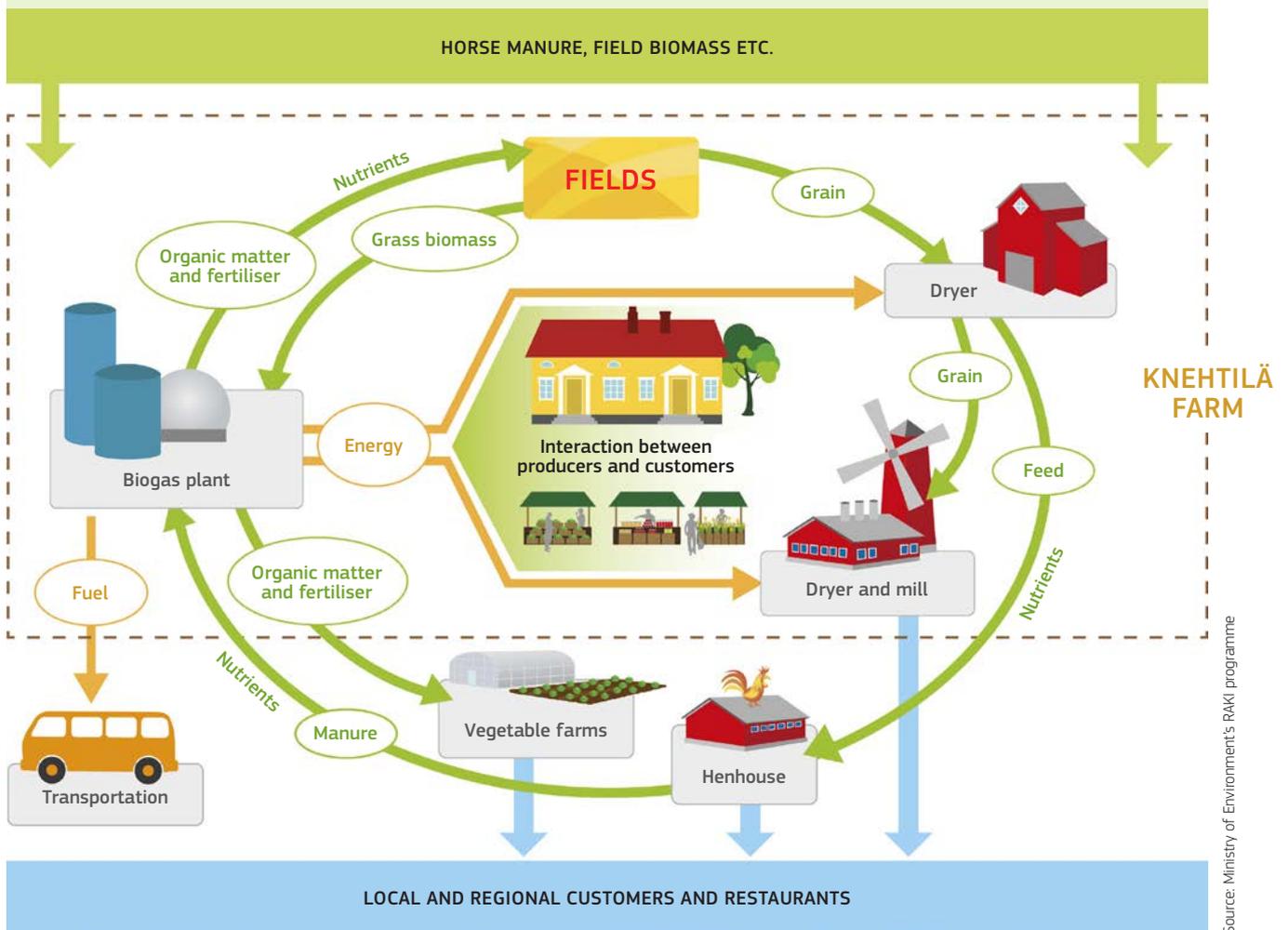
**PALOPURO AGROECOLOGICAL SYMBIOSIS, FINLAND**

Drawing on the ideas of ecological symbiosis, this project seeks to create an agricultural system based on mutually beneficial relationships. It brings together a group of farms and food producers within the small rural town of Hyvinkää in an effort to find synergies that promote ecological and economic efficiency through closing the biomass loop.

The idea of this initiative is to:

- Create an energy and nutrient self-sufficient food production system that is both locally based and transparent to the community and the consumers of the products.
- Increase economic profitability through the integration of different but connected operations in production and processing.
- Increase energy self-sufficiency by reducing the greenhouse gas emissions per unit of product.
- Strengthen the local community by reconnecting consumers with the source of their food.

<http://blogs.helsinki.fi/palopuronsymbioosi/>



Source: Ministry of Environment's RAKI programme



## 6. Using the RDPs to support better the transition to a green economy

© Tim Hudson

The term ‘green economy’ is not explicitly used as a priority of EU Rural Development policy. This means it is not possible to identify a single budget allocation or strategy that summaries Managing Authorities’ efforts to use the Rural Development Programmes (RDPs).

To increase understanding of how Managing Authorities can use the RDPs in practice to support transition to the green economy, the dedicated ENRD Thematic Group decided to identify a small selection of interesting RDPs to study in greater detail.

The analysis highlights that in many cases, it is only possible to infer an approach to the green economy based on an overall picture of a number of strategic decisions on how the RDP is designed. On occasion – such as in Wales (UK) and Emilia Romagna (IT) – it is possible to refer back to broader strategies for the green economy already in place outside of Rural Development policy.

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**RURAL DEVELOPMENT PRIORITIES AND THE GREEN ECONOMY**

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**DIFFERENT APPROACHES TO PROGRAMMING ‘GREEN ECONOMY’ MEASURES**

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**THE RDPs AND CAPACITY BUILDING**

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**RDPs AND GREEN BUSINESS SUPPORT**

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**RDPs AND LOCALLY LED APPROACHES**

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**CONCLUSIONS**

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## RURAL DEVELOPMENT PRIORITIES AND THE GREEN ECONOMY

The ‘Green Economy’ as a specific term does not appear as an objective of EU Rural Development Policy. This makes it challenging to identify how Rural Development Programmes are supporting transition to the green economy in practice.

Rural Development programming is structured according to Priorities and Focus Areas as defined by the Regulation for the European Agricultural Fund for Rural Development (EAFRD).<sup>1</sup>

The term ‘green economy’ is not explicitly used in this Regulation and so it is not possible to identify a single budget allocation or allocation of Measures that have been programmed to support this transition.

Nevertheless, this has certainly not inhibited Managing Authorities from using the RDPs to support imaginative and forward-looking approaches to deliver transition to the green economy, using a variety of different Measures.

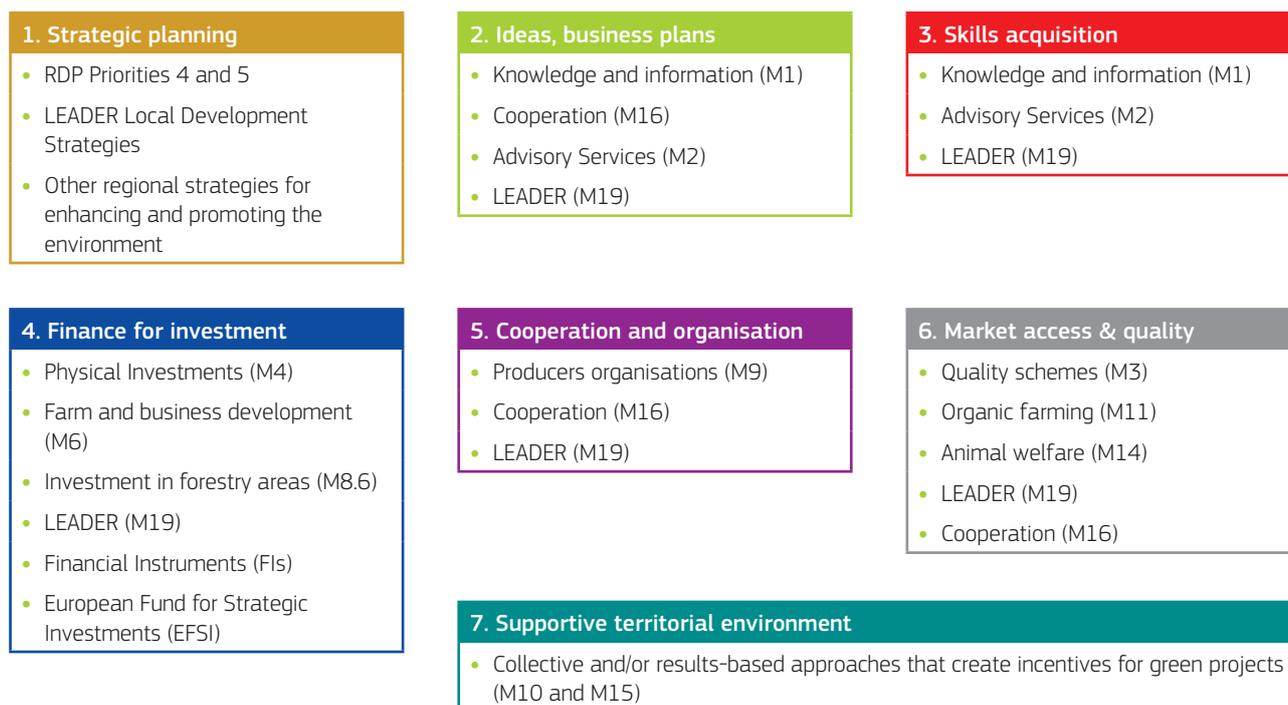
The difficulty is that identifying the full extent of these approaches, means looking at how the full range of Measures are programmed and how these feed into coherent approaches. As Figure 6 below shows, these Measures cover everything from finance for investment to skills acquisition and from supporting market access to enabling cooperation.

The following analysis is predominantly based on case studies of five Rural Development Programmes conducted by the ENRD Thematic Group on the ‘Transition to the Green Economy’<sup>2</sup>: Emilia-Romagna (Italy); Finland; Ireland; Lower Saxony and Bremen (Germany); and Wales (UK). Other specific RDP aspects highlighted

by members of the group are also referred to where relevant.

An approach based on the study of a sample of interesting RDP examples was felt to be more beneficial than drawing too many conclusions from overall budget allocations across Priorities and Focus Areas at EU-28 level. The examples aim to show the possibilities provided by the RDPs, rather than the extent to which they are consistently taken advantage of across Europe.

Figure 6. How can RDPs support the transition to the green economy?



(1) Regulation (EU) No. 1305/2013 on support for Rural Development by the EAFRD

(2) [http://enrd.ec.europa.eu/thematic-work/greening-rural-economy/transition-green-economy\\_en](http://enrd.ec.europa.eu/thematic-work/greening-rural-economy/transition-green-economy_en)

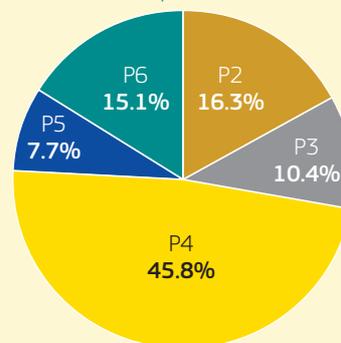
### ENVIRONMENTAL PRIORITIES AND THE GREEN ECONOMY

Some Priorities appear particularly relevant for transition to a green economy, especially the two environmental priorities:

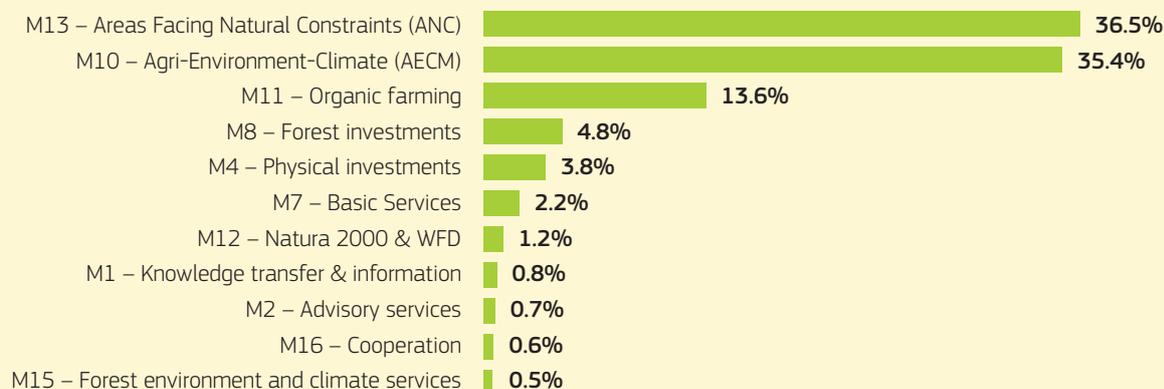
- **Priority 4 (P4)** - restoring, preserving and enhancing ecosystems related to agriculture and forestry.
- **Priority 5 (P5)** - promoting resource efficiency and supporting the shift towards a low-carbon and climate-resilient economy in agriculture, food and forestry sectors.

Together, these account for over half of the ± €160 billion total public expenditure invested in the RDPs. However, it is not possible to draw too many conclusions from this budget allocation. As the members of the ENRD Thematic Group discussed, this is firstly because it is not possible to equate spending under the environmental priorities with ‘green economy’ and secondly because ‘green economy’ is much more than simply the environment.

**Figure 7.** Proportion of total public funding by Priority – EU-28



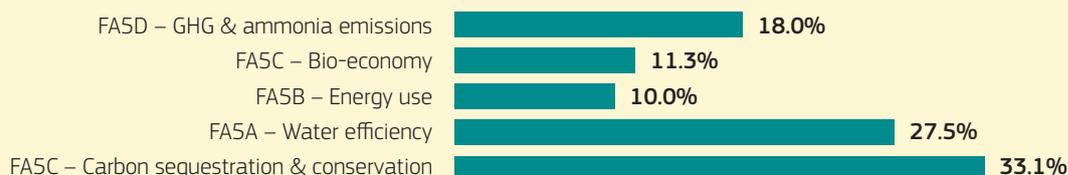
**Figure 8.** Programming under Priority 4 by Measure (M)



An analysis of programming under **Priority 4** shows that a remarkable 70% of the expenditure is used on just two major land-use Measures – Measure 10 ‘Agri-Environment-Climate’ (AEC) and Measure 13 ‘Areas with Natural Constraints’ (ANC). Thematic Group members stressed that certain features of the design and implementation of these Measures strongly affect the environmental results that might be achieved.

For example, environmental organisations have been critical of the ANC Measure<sup>3</sup> which makes up 36.5% of the budget programmed under Priority 4. They argue that the Measure often simply compensates farmers for natural handicaps without imposing any environmental conditions.<sup>4</sup>

**Figure 9.** Programming under Priority 5 by Focus Area (FA)



Meanwhile, the overall budget allocated to **Priority 5** – which addresses many issues at the heart of the green economy around resource efficiency and climate change – appears comparatively low. However, this would be to ignore the many and important secondary effects on Priority 5 objectives from Measures programmed under other economic or social priorities.

(3) Measure 13 – Payments to areas facing natural or other specific constraints

(4) EEB and Birdlife Factsheets. The truth behind the New CAP [www.birdlife.org/europe-and-central-asia/policy/event-hidden-truth-resources](http://www.birdlife.org/europe-and-central-asia/policy/event-hidden-truth-resources)



in accordance with the sustainable development principle aimed at achieving the well-being goals". Under this new legislation every public body in Wales must set objectives for sustainable development, and progress will be measured against a set of 46 national indicators of social, economic and environmental well-being.<sup>9</sup> The government has identified five priorities for green growth in Wales:

- investing in high-quality and sustainable infrastructure;

- making Wales a more attractive place to do business;
- broadening and deepening the skills base;
- encouraging science and innovation; and
- targeting business support.

Wales is unusual in that the policy sectors of agriculture, forestry and the environment are now closely integrated in the institutional framework of government. This in turn has influenced the way in which

the RDP is designed and delivered, with a targeted 'one-stop-shop' delivery (see box p.36).

## THE RDPs AND CAPACITY BUILDING

One of the first ways in which the RDPs can support the transition to the green economy is through capacity building.

The three-year programme for 'Knowledge Transfer Groups' in **Ireland**, launched in 2016, is intended to help 26 600 farmers in six sectors – beef, sheep, dairy, tillage, equine and poultry – to develop their knowledge and skills base, to pursue best practice and to improve their incomes.

Farmers engage in one-to-one discussions with an adviser, complemented by group-based discussions and by sharing experience and information between farmers.

The 'Knowledge Transfer Groups', funded under **M1 knowledge transfer and information**, each have 12-18 participants supported by a qualified, government-approved facilitator who organises between five and ten group meetings in each of the three years, and helps every participant to prepare a tailored 'Farm Improvement Plan' (FIP).

An additional benefit is the social interaction of the groups, helping to counteract the problem of rural isolation. Participants will be paid € 750 per year and must attend at

least five group meetings a year, as well as prepare and update their FIP.

As part of the **Lower Saxony and Bremen** RDP, the initiative 'Making it clear – from shop shelf to the producer' uses the **Cooperation Sub-Measure M16.9** to support the training of village facilitators who are actively engaged in raising environmental awareness at village level and kick-starting processes to find creative solutions to demographic change and other challenges facing rural areas.

They engage young consumers and families to awake in them an interest in the positive development of the countryside. The programme wants to generate spaces for local dialogues between farming businesses, education services and tourism providers. This will help Lower Saxony increase the market for labelled local products, which is currently small compared to other German regions.



© Tim Hudson

(9) Welsh Government (2016) How to measure a nation's progress? National indicators for Wales: Technical document <http://gov.wales/docs/desh/publications/160317-national-indicators-for-wales-technical-document-en.pdf>

## RDPs AND GREEN BUSINESS SUPPORT

Different forms of business support can be enabled by the RDPs to encourage and foster practices that contribute to the transition to the green economy.

The 'Timber Business Investment Scheme' in **Wales**, under the **forest Measure M8**, aims to enhance forestry potential in Wales and add value to forest products in a sector where too many land owners (especially some members of the farming community) are not engaged in woodland management or creation, and have not reacted to the demand for wood fuel.

The scheme is open to private forest owners, local authorities, SMEs, community organisations and forestry contractors. Examples of eligible activities include: investing in environmentally friendly technology to extract timber from small and/or inaccessible woodlands (e.g. cable-cranes and skidders); and developing of small forest nurseries serving several forest holdings.

In **Hungary**, a woodworking business producing high-quality doors, windows and conservatories needed a larger factory to cope with increased demand. **LEADER** funds supported the construction of a new building which meets the company's high environmental standards. The building is heated by a boiler which uses the wood waste from the manufacturing process.<sup>10</sup>

In **Ireland**, the **investment Measure M4** will be used to support modernisation and restructuring of 10% of farm holdings. On another 3% of holdings, young farmers will benefit from targeted RDP support. There is a particular focus on improving energy efficiency in the farming sector with investment of €50 million planned.

Ireland also provides a good example of RDP support enhancing both the

environmental and economic aspects of a 'greener' business through the **organic farming Measure M11**. It is targeted at converting 16 000 ha of farmland to organic production. By 2023, Ireland aims to have 60% of its agricultural land under environmental land management contracts supporting biodiversity and/or improving the management of water and soils, and a further 10% under contracts encouraging and supporting climate-friendly farming practices.

### EXAMPLES OF ENVIRONMENTAL CONDITIONALITIES

In **Lower Saxony and Bremen**, applicants to the RDP agricultural investment scheme must score points for their environmental and climate objectives in order to get funding.

Applicants for food-processing and marketing support in **Wales** must demonstrate through an independent certifier that they invest at least 20% of the money in resource saving and reduce their resource use by at least 10%.



## RDPs AND LOCALLY LED APPROACHES

The RDPs can be used to support and enable the kind of group actions and locally led approaches that can often be best placed to respond effectively to local needs and circumstances in promoting the transition to the green economy.

In **Lower Saxony and Bremen** the RDP Measure for **preventing damage from climatic events (M5.1)** is being used to invest in the protection of inland agricultural areas from flooding. The flood protection programme is intended to channel €610 million to 130 public bodies in 2014 to 2020, with support for all the planning, surveying and consultations, to make sure the funds are used as economically as possible. A typical action is to set back the flood dike and create a new flood overspill area in front of the dike, which can bring benefits both for agricultural risk management and for wildlife.

In the same region, the programmes to fund nature restoration and management bring together farmers and foresters with local authorities, NGOs, local businesses and contractors,<sup>11</sup> using the RDP **Measures for studies and investments in high nature value sites (M7.1)** and support for **non-CLLD strategies (M16.7)**. Funding the development and implementation of plans and



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concepts for Natura 2000 and other protected areas and wildlife sites in Lower Saxony and Bremen will not just benefit biodiversity, but also create new opportunities for tourism and recreation, and local employment for farmers, foresters and contractors.

In **Ireland**, the **LEADER Measure (M19)** will help farming families to diversify and explore business opportunities outside the farm.

### USING RDPs WITH OTHER EU FUNDS

There are opportunities to build complementarities between RDP spending and other EU Funds to better support the move to a greener rural economy.

In **Emilia Romagna**, the €1.85 million three-year '**Climate change-R**' project, funded by the LIFE+ programme for environment and climate action, started in 2013 and is co-ordinated by the RDP Managing Authority. From the outset, it was planned that best practices for reducing GHG emissions (CH<sub>4</sub>, N<sub>2</sub>O and CO<sub>2</sub>) identified by the project would inform the design and targeting of climate mitigation support in the 2014-2020 RDP.

The project brought together 11 major stakeholders from the farming and the agri-food sectors to identify and assess best practices for GHG reduction for both cropping and livestock farms. These practices were promoted through demonstration and information actions funded by the project, and already some framework agreements for good GHG mitigation practices are being set up between farmers and the businesses that buy their produce. The RDP 2014-2020 aims to encourage farmers to adopt best practices identified by the LIFE+ project through Measures for Agri-Environment-Climate, organic farming, investment in farm holdings, knowledge transfer, advice and cooperation.

(11) [www.ml.niedersachsen.de/portal/live.php?navigation\\_id=37881&article\\_id=140890](http://www.ml.niedersachsen.de/portal/live.php?navigation_id=37881&article_id=140890)



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## CONCLUSIONS

Transitioning to a green economy requires a paradigm change in how sectors are traditionally viewed and a broadening of perspective.

The green economy is relevant to all economic sectors in rural areas. Rural-urban interlinkages are also important, because the green investments and activities in rural areas can contribute to green economic growth in urban areas and vice versa.

The transition to a green economy will require action on many fronts and significant investments are likely to be required to create the necessary impetus in some areas. Rural Development Programmes (RDPs) can play a key role through supporting low-carbon, resource-efficient and socially equitable investments, as well as encouraging the sustainable management of natural resources in a wide range of economic sectors, not just agriculture and forestry.

Although they are often small in scale and not branded as contributing to the growth of the green economy, there are already many examples of

RDP investments and initiatives that can contribute to creating jobs and economic growth in a low-carbon and resource-efficient way.

Combining EAFRD with support from other EU Funds and working across sectors and institutional divisions could increase the leverage of RDP support.

However, achieving the full scale of the potential transition will mean adoption of current good practice on a much greater scale than is currently the case within the EU-28, as well as investments in new ideas, technologies and actions.

This requires new ways of working, for example cooperating on territorially integrated initiatives and engaging with a more diverse range of actors. Innovation and rural entrepreneurship must be encouraged, as well as knowledge transfer, for example by using advice, training and mentoring.

It will be invaluable to consider how to achieve best value for money from the implementation of RDP Measures and how to create leverage effects.

Planning how to combine RDP Measures in packages to support integrated schemes to deliver particular outcomes will be important, as will the use of Financial Instruments, particularly looking at how these might support small-scale investments at local level.

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Keep up to date with all the latest news, views and developments in European rural development by reading the various ENRD publications.

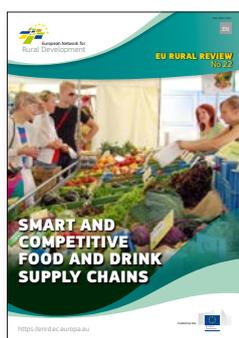
These are available on the Publications section of <https://enrd.ec.europa.eu> or you can subscribe by emailing [subscribe@enrd.eu](mailto:subscribe@enrd.eu).

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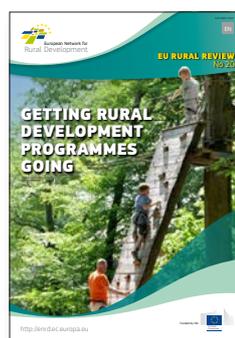
### *No.22 – Smart and competitive food and drink supply chains*



### *No.21 – Rural responses to challenges in Europe*



### *No.20 – Getting Rural Development Programmes Going*



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