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1 INTRODUCTION

Starting in July 2018, the ENRD animated a Thematic Group (TG) on 'Mainstreaming the bioeconomy' with the overarching objective to 'encourage the development of sustainable bioeconomy value chains in rural areas in order to promote employment, economic growth, and social inclusion, while preserving eco-systems." The TG was structured as an open group of interested stakeholders across Europe and involved among others Managing Authorities, researchers, farmers and representatives of environmental NGOs.

The TG's work was rooted in the use of EU Common Agricultural Policy (CAP), and particularly Rural Development Programmes (RDPs), in support of its stated objectives. The TG identified the different element of rural value chains that can benefit from the development of the bioeconomy, how these benefits can be delivered in rural areas and how they can be made sustainable and self-supporting, particularly through the use of the European Agricultural Fund for Rural Development (EAFRD).

The headline recommendations describe the cross-cutting elements of bioeconomy value chain development that need to be addressed through the Rural Development Programmes (RDPs) and use of complementary instruments.

• Download the recommendations 'How to mainstream the bioeconomy in rural areas?'

They are followed by **recommendations for future CAP strategic plans** and more specific needs for the different stages of bioeconomy value chain development. This part includes recommendations on how such needs can be addressed by **the currently available RDPs and other complementary instruments** available.

• Download the recommendations 'How to use RDPs to support rural bioeconomy?'

This document is based on outcomes of the TG meetings, over 30 interviews with managing and regional authorities, civil interest groups, support services and farmers, desk-based research on literature, policy and strategy documents and direct input from selected experts involved with the TG work..

The TG also produced the following documents:

- 'European rural bioeconomy: policy and tools' (briefing)
- 'Exploring the role of awareness-raising and communication in promoting the development of sustainable bioeconomy value chains' (briefing)

All documents are available for free download from the ENRD website.

The content of this document is based on the work of the ENRD Thematic Group on Bioeconomy, and does not represent the views of the European Commission.





2. HEADLINE RECOMMENDATIONS

Enable support to rural bioeconomy within the RDPs: ensure a shared understanding of the concept and its significance for rural development and rural actors.

- Set a clear definition of what is meant by 'bioeconomy' within the RDP context, and the results that it is expected to deliver, covering expected economic, social and environmental outcomes simultaneously.
- Integrate awareness-raising activities of the definition and of the available support opportunities at all levels, from RDP administration to local authorities, advisory services, farmers, rural businesses and others.
- Build a vision for the rural bioeconomy enabled through RDPs, linked where possible to national or regional visions (and the EU Strategy on Bioeconomy) and other funding instruments.
- If wanted, the adopted definition for 'bioeconomy' can be used to set eligibility criteria for (some) RDP funding.

Bring actors together to create and support the development of resilient and innovative bioeconomy 'value webs'.

- Use existing (or develop new) networks, clusters and supply chains to enable innovation and entrepreneurship for new bioeconomy value chains, involving small and large players, at different stages in the chain.
- Encourage innovative linking together of different sectors and value chains that evolve in synergy.
- Make sure expert advice and support is available at all developmental stages, from launch to learning.

Use RDP measures smartly to provide coordinated support to rural bioeconomy initiatives.

 Make available combinations of RDP measures that can together respond to the needs in launching, supporting, sustaining and improving rural initiatives around bioeconomy.
 For example, match knowledge transfer activities or advisory services supporting the set-up of new bio-based business models with availability of investment measures; or support to innovation or pilot projects with investment or promotion and dissemination support (see mapping of relevant RDPs and other measures in chapter 2).

Facilitate territorial approaches where appropriate to optimise long-term buy-in and impact.

 Build synergies with existing territorial dynamics and resource availability to ensure that bioeconomy initiatives contribute to sustainable development and management of land and resources.

- Ensure all stakeholders' even small ones' interests and existing initiatives are taken into account in the process and local needs are being answered.
- Prioritise activities that add and maintain value within the local rural economy through circular value chains and synergetic 'value webs', promotion of local demand and upgrading of local employment, services and knowledge base. This includes the integration of producers into other stages of the value chain.

Find synergies with other ESIF instruments and tools.

- Ensure Managing and Paying Authorities are aware of synergetic objectives relevant to rural bioeconomy and complementary funding instruments of different ESIF funds, how they can be accessed and used in this context to support rural bioeconomy value chains and their diverse stakeholders.
- Explore opportunities to provide complementary funding from diverse ESIF funds, possibly in 'packages' according to eligibility and applicability of each fund. For example, using ERDF support to carry out a feasibility study for a rural bio-based enterprise and RDP funding to support related investments in business start-up and infrastructure.
- Streamline the funding advice and application processes for the rural beneficiary as much as possible. For example, setting up a one-stop-shop for all rural bioeconomy initiatives to access different funding and support streams; developing on-line application systems.

Develop indicators that reflect the distinctive and varied nature of bioeconomy initiatives.

- These will help assess and negotiate initiatives that are labelled as bioeconomy in the first place (see first recommendation – Enabling support) as well as enable monitoring.
- Do not reinvent the wheel: extensive work has been done on indicators for different elements of the bioeconomy, which should be built upon to reduce administrative burden and data collection needs. Within an RDP, apply the ones that are relevant and that are in line with indicator frameworks already applied in your RDP context.
- Use indicators that allow the effective demonstration of economic, social and environmental impact which can be expected from the bioeconomy.
- Explore new tools that enable further value creation for rural bioeconomy initiatives through market recognition and reward.

3. THE DEVELOPMENT OF BIOECONOMY THROUGH THE CURRENT CAP AND THE CAP STRATEGIC PLANS POST-2020

ustainable rural bioeconomy value chains provide the opportunity for greater rural development and can deliver value-added to rural areas and existing rural resources. As part of a circular bioeconomy, sustainability can be integrated into these new value chains. The development of post-2020 Europe will see a change in both the way EU agricultural policy is delivered, with greater subsidiarity for MS, but also a variety of changes in objectives and strategies as we begin to look to 2030 and 2050 time horizons for priorities such as climate and energy, Sustainable Development Goals (SDGs) and rural-urban integration. CAP Strategic Plans offer an opportunity to look across these various priorities and provide an integrated view of how they can be delivered sustainably and without tensions through the development of bioeconomy value chains.

The future CAP architecture will be different than that of the current programming period, but many of the approaches taken to developing sustainable bioeconomy value chains will involve the same practices and approaches that work today. The following recommendations for the current programming period set out the different steps of bioeconomy value chain development and will be as applicable in the future CAP, even if the measures change.

As such, CAP Plans should be used to encourage developments in land use and land management for the bioeconomy which fully integrate biodiversity, landscape and GHG considerations. But to do this, there will need to be a clear understanding of what the bioeconomy is, how it can integrate these priorities and the benefits it brings. This will in turn help support Member States in their SWOT analysis and needs assessment, where there are opportunities for bioeconomy development and how these can be realised within natural limits.

3.1. How to maximise the use of current RDP measures to support bioeconomy value chains, in synergy with other support measures

The recommendations focus on four key elements of setting up sustainable rural bioeconomy value chains:

- a. the actions and support needed to launch the value chain, which involves bringing together key players and identifying opportunities;
- supporting and investing in the bioeconomy value chain from its inception through to its ongoing operation and improvement, involving investment and advisory support;
- c. making the rural bioeconomy value chain self-sustaining through advisory support, investments and promotion and dissemination, for it to thrive without ongoing subsidy;

d. monitoring, evaluation and learning is key at all stages of the process to ensure that environmental and economic sustainability is realised.

The following section sets out the recommendations according to these four key elements. For each need identified, the document presents the intended impact of the RDP measure alongside the potential need for other supporting instruments and their contribution to the bioeconomy value chain development. However, it is important to recognise that in practice these elements may require attention at any point through the operation of bioeconomy value chains and are not a linear series of steps that once completed can be forgotten.

LAUNCHING THE VALUE CHAIN

Need: Developing action plans, visions, strategies and initiatives.

How the RDP can help: Currently there is limited scope for RDPs to set out action plans and strategies that address the bioeconomy in rural areas. This is one area where future CAP Strategic Plans could add real value. However, RDP-related networks, such as Leader networks, may be a useful element in the process of (regional or national) strategy development, as they are able to root the discussion in the local contexts.

Other complementary measures: National or regional actions

Need: Review of the resource base to understand the potential of an area/cluster.

How the RDP can help: To support new initiatives around an identified resource or ecosystem service. Relevant measures: M16.1 – EIP-Agri Operational Groups; M16.2 – Pilot projects.

Other complementary measures: Through LIFE+ and Horizon2020 research activities, pilot approaches can be tested to complement CAP supported initiatives.

Need: Understanding capacity to use bio-resources within an area.

How the RDP can help: To set up pilot studies or awareness-raising projects to identify resources (including human resources and skills) available and capacity to process, or offer related services, within a territory. Relevant measure: M19 – LEADER.

Other complementary measures: Maximise the use of available information through the use of available tools such

as JRC/NOVA biomass mapping, Eurostat skills, education & demographics mapping, pools of good practices (Circular Economy Platform), DG Growth Self-Assessment Tool (SAT) on a region's readiness for biomass-based sustainable chemical production.

Need: Planning bioeconomy value chains that tailor to the needs and resources of a local area.

How the RDP can help: To develop plans that address resource needs and integrate bioeconomy value chains at the territorial level. Relevant measures: M7.1 – Local development plans; M19 – LEADER.

Other complementary measures: ERDF funded projects can support the planning of the bieconomy initiatives in rural areas.

Need: Start-up initiatives, bringing together different actors in an area and sharing knowledge, or the setting up of producer groups.

How the RDP can help: To enable actors within a value chain (e.g. producers or manufacturers) to work together. Relevant measures: M16.1 – EIP-Agri Operational Groups; M1.3 – Learning exchanges; M19 – LEADER; M9 – Setting up of producer groups.

Other complementary measures: European Territorial Cooperation (ETC) (Interreg programmes). Bringing together actors from different countries to share knowledge / setting up logistic value chains. Through LIFE+ and H2O2O research activities, pilot approaches can be tested to complement CAP supported initiatives.

Need: Encouraging joint activities linked to the development of sustainable and resilient bioeconomy value chains that enable upscaling of initiatives and innovations, create business linkages and build strength in numbers.

How the RDP can help: To support actors across the value chain to work together and in synergy. Relevant measures: M16.5 – Joint action on climate and environment; M16.4 – Short supply chains; M16.6 – Cooperation for biomass provision.

By supporting infrastructure and co-operative working environments to encourage synergy and connect actors in the value chain. Relevant measure: M16 – Cooperation measures.

Other complementary measures: European Territorial Cooperation (ETC) (Interreg programmes). Bringing together actors from different countries to share knowledge / setting up logistic value chains. National actions; and ERDF. Different cluster approaches.

Other needs identified by the Thematic Group to launch bioeconomy value chains that cannot or are not currently widely addressed directly through RDPs.

Rural business incubators could be an effective tool to promote new business models in bioeconomy.

B) SUPPORTING AND INVESTING IN THE BIOECONOMY VALUE CHAIN

Need: Enabling access to existing quality schemes which have links to bioeconomy value chains.

How the RDP can help: To enable value chain actors to have access to quality schemes and thus access to market. Relevant measure: M3.1 – Quality schemes.

Other complementary measures: Use of National funds promoting regions through media and tourism information, as well as developing national standards and certificates, or more broadly a Bioeconomy label – certificate of triple sustainability.

Areas for improvement: There is a gap in the current RDP measures for M3.1 – Quality schemes which is currently limited to food. This could be broadened to enable its use for the bioeconomy.

Need: Support for new machinery or infrastructure to enable the use of biomass streams for bioeconomy initiatives and support sustainable value chains.

How the RDP can help: To provide value chain actors with the physical tools necessary to enable sustainable production. Relevant measures: M4.1 – Farm investments; M4.2 – Investments in processing/ marketing; M4.3 – Investment in farm modernisation; M7.2 – Investments in resource efficiency; M7.3 – Support for broadband infrastructure; M7.4 – Investments in basic services; M6.4 – Investment in creation and development of non-agricultural activities.

Financial instruments, where applied to the RDP, can facilitate access to private funding.

Other complementary measures: ERDF Investments in machinery and tools not supported through EAFRD.

Areas of Improvement: Current investment measure M4 is not promoting primary producers' integration in other parts of bioeconomy value chains. As an example, it cannot be applied by a farmer who would like to produce bioenergy partly for own energy needs (farm-level investment) and partly for sale. This may cause difficulties in estimating the size of economically sustainable investments in farm-level bioeconomy.

Need: Support for diversification of activities into new bioeconomy initiatives, including environmental services.

How the RDP can help: To enable the set-up of bioeconomy value chain initiatives that address both service-bioeconomy and product-based bioeconomy value chains. Relevant measures: M6.2 – Business start-up aid; M6.4 – Investment in non-agricultural activities.

Other complementary measures: ERDF planning activities.

Need: Support for new production systems and diversification of biomass streams.

How the RDP can help: To enable new production systems for farmers and foresters. Relevant measures: M8.1 - Afforestation; M8.2 - Investment in forestry technologies and processing.

Other complementary measures: National funds may be used to support afforestation in Member States where M8.1 and M8.2 are not available.

Need: Support for the utilisation of different biomass streams.

How the RDP can help: To enable the greater valorisation of side-streams in forest sectors leading to greater resource efficiency. Relevant measures: M8.6 – Investment in forestry technologies and processing.

Other complementary measures: European Territorial Cooperation (ETC) (Interreg programmes) enabling the setting up logistic value chains – although it was noted in the TG discussions that more flexible support for intra- and inter-territory and international cooperation is still needed.

Areas for improvement: There is currently a gap in the RDP advisory services for rural enterprises involved in the processing of biomass into bio-based products, as most RDP-funded advisory services are for farm advise. They may need to develop in order to mainstream bioeconomy into rural areas.

Need: Enabling training workshops, practical sessions and supporting SMEs in bioeconomy value chain development.

How the RDP can help: To enable actors to have the knowledge and skills to make the most of bioeconomy opportunities and deliver innovation and new business models. Relevant measures: M1.1 – Training and skills; M1.2 – Demonstration and information activities; M19 – LEADER.

Other complementary measures: Knowledge sharing and development for how to implement policy and sharing ideas at the pan-EU level, through for example the operation of Thematic Groups run by EU networks and projects, and EIP-AGRI and the development of good practice examples translated into multiple languages.

Areas for improvement: There is evidence that only the bigger and well-established rural enterprises and farms can

afford – in terms of time, money and human resources – to participate in paid advice/information events, learning visits and exchanges. Small, starting and part-time enterprises can only be reached if the costs are covered 100% up-front. The Employment and Social Innovation (EaSI) programme could also be used to address this need.

Need: Enabling learning from others - sharing ideas and networking.

How the RDP can help: To ensure that knowledge and good practice is disseminated leading to more rapid and sustainable development of bioeconomy value chains. Relevant measures: M1.3 – Learning exchanges; M19 – LEADER.

Other complementary measures: NRN events are a possible platform for exchange and learning. See also the other complementary measures listed above, particularly through inter-regional exchanges and between countries and territories.

Areas for improvement: There is a gap in current RDP measures, and support in general, with regard to enabling and financing network events where rural SMEs can meet and learn from each other and establish concrete business linkages. This could be addressed through existing tools such as H2020, Interreg or Smart Specialisation projects, or through regional projects such as the Baltic Sea Region Interreg project RDI2Club (http://www.rdi2club.eu/).

Need: Capacity building for advisors and managing authorities to advise on setting up new bioeconomy value chains.

How the RDP can help: To support advisors and decision makers in having the knowledge and skills enabling them to be drivers of change for new bioeconomy value chains. Relevant measures: M2.1 – Access to advisory services; M2.2 – Set-up of advisory services; M2.3 – Training of advisors.

Other complementary measures: See the two above recommendations. Engage R&I institutions to provide certified expertise for farmers and SMEs tailored to regional needs on, among others, digitisation, bio-engineering (biogas etc.), carbon farming/forestry, continuous cover forestry, shift to renewable energy, better food processing (more from less, better taste and with minimal waste) and circular use of regional biomass.

Other needs identified by the Thematic Group to support and invest in bioeconomy value chains that cannot or are not currently widely addressed directly through RDPs.

• Direct support through Pillar 1 of the CAP could achieve a much greater impact on the transition to sustainable rural

bio-based economy (than pillar 2 measures) if they were conditional on rigorous sustainability requirements and delivery of multiple benefits.

- To create space for small actors in industry-led value chains, to support them to benefit and be part of the process, contributing to innovation and entrepreneurship.
 The BBI JU, for example, is exploring good practises on integrating SMEs in larger value chains.
- Ensuring investments for adaptation and continuous development of products and business models (as RDP investment measures are often concentrated on start-up support and machinery and infrastructure investments) – InnovFin is an existing instrument which could be explored for this purpose.
- To support the integration of sustainability within the bioeconomy through formalising education on the bioeconomy, including courses in universities, in agri/forest programmes and in schools to increase understanding and acceptance of products.
- Advise on legal matters is often as crucial as advise on technical skills when rural actors launch economic initiatives touching upon different sectors such as agriculture, energy and waste.

C) MAKING THE RURAL BIOECONOMY VALUE CHAIN SELF-SUSTAINING

Need: Communication and marketing strategy support to be able to promote products and services that have been or are being developed.

This can require specific skills and expertise linked to dissemination and public awareness raising of bioeconomy value chains and their benefits

How the RDP can help: To support advisors and rural advisors gain the knowledge and skills enabling them to be drivers of change for new bioeconomy value chains. Relevant measures: M2.1 – Access to advisory services; M2.2 – Setup of advisory services; M2.3 – Training of advisors; M3 and M16 – enabling the setting up of groups.

Other complementary measures: ERDF Support for added value of tourism, understanding and access to the forest environment; Horizon2020.

Example: Bioways – Pilot sustainability criteria for the use of forest and non-forest biomass resources.

Need: Advice and support throughout the lifetime of the business / initiative and not just at the start-up phase.

This may include access to information on markets (areas in which to sell), technology updates (to improve efficiency and sustainability), legislative changes (which are not necessarily easy to access or understand from the available sources). Information and advice of this nature needs to be easy to understand and accessible to those in need of it. This could be facilitated through a local contact point or knowledge holder supporting farmers and businesses.

How the RDP can help: To provide up-to-date, adapted and flexible advice; of course, the advisors themselves have to be sufficiently informed. Relevant measures: M2.1 – Access to advisory services; M2.2 – Set-up of advisory services; M2.3 – Training of advisors.

To enable knowledge and good practice to be shared, leading to more rapid and sustainable development of bioeconomy value chains. Relevant measures: M1.3 – Learning exchanges; M19 – LEADER.

Other complementary measures: Setting up of training centres or platforms, groups at scale.

Need: Enabling access to existing sustainable value chains and markets.

How the RDP can help: To enable actors and value chains to benefit from participation in quality or certification schemes and thus access certain markets or ad-hoc promotional activities to support new value chains. Relevant measures: M3.1 – Quality schemes; M3.2 – Information and promotion by producer groups; M19 – LEADER.

Other complementary measures: EU Ecolabel, or other new certification and labelling schemes. COSME to enable market access, finance and development support needs in a coordinated way, to ensure the link from innovation to commercialisation.

Need: To link value-chains together to create valuewebs or cascading chains where the products, wastes and residues for any aspect of a bioeconomy value chain can be valorised to make the whole chain/web more integrated and sustainable.

This could include the use of biomass in different ways as well as the integration of different actors, such as retailers, tourism operators and producers. This also supports the need for reaching a certain level of scale or organisation in order to enter and survive in the market.

How the RDP can help: To develop local initiatives in creating bioeconomy value-webs or linking existing value chains, set up Operational Groups or short supply chains. Relevant measures: M19 – LEADER; M16.1 – EIP-AGRI Operational Groups; M16.4 – setting up of short supply chains.

Other complementary measures: Horizon2020. It will be important to develop other tools to help promote producers

in other, more value-added aspects of the value chain. Cluster approaches; tools provided by the European Cluster Collaboration Platform (ECCP).

Example: the online clearing-house platform (Agriforvalor) to match resource availability with need.

Other needs identified by the Thematic Group to enable bioeconomy value chains to be self-sustaining that cannot or are not currently widely addressed directly through RDPs.

- To have greater market and policy certainty to enable value chains to develop and invest with some stability, whilst remaining flexible to allow the integration of innovations and the capacity to respond to different needs in different contexts.
- To receive a constant inflow of human resources and human capital to innovate and sustain bioeconomy value chains.
 Potential tools include: Smart specialisation programme; Education system improvements (e.g. university.)
- To have local policy development and changes to support infrastructure, enable start-ups and bioeconomy. Potential tools include clusters, public procurement changes, preference for bio-based products, links to local markets.
- To create value (and thus markets) for products at the EU level, and to ensure that bioeconomy products benefit from correct pricing through market and tax regulation. Potential tools include: Green Public Procurement, favourable policies, clear identification of sustainability; standards (at EU, National and Regional level) and certifications.
- To have adapted technology focussed on local resources.
 Potential tools include locally adapted Research and Development priorities and investments.

D) MONITORING, EVALUATION AND LEARNING TO BE MORE SUSTAINABLE

Monitoring, evaluation and learning should be integrated throughout the entire development of bioeconomy value chains and should reflect the different local, regional and national contexts in which they operate. This would enable value chains to develop and improve through the adoption of good practice norms, as well as stimulate innovation in new areas. In effective evaluation, the needs and objectives of the bioeconomy need to be clear from the start and to be effective across different funding streams and initiatives (such as RDPs, H2020 support and other ESIF) to ensure that, overall, the collective approach to projects and funding moves towards 'improvement' for society.

Need: Checking new bioeconomy value chains are delivering added value and are sustainable in operation.

How the RDP can help: To support operational groups to test monitoring approaches or develop new ideas. Relevant measures: M16.1 – EIP-Agri Operational Groups.

Other complementary measures: H2020 and LIFE+ Research instruments to monitor improvements or change; projects to develop indicators and monitoring methods; projects to pilot new approaches.

Areas of attention: The regulation proposal for the future CAP Plans includes a Result Indicator "R.32 Developing the rural bioeconomy: Number of bioeconomy businesses developed with support". It must be noted that in many cases the supported bioeconomy activity forms only part of the actions of a rural enterprise (in case of diversification into new bioeconomy activities), but the business as a whole is not a bioeconomy business per se. This might cause interpretation problems at the level of the Managing Authority and monitoring. The concept of bioeconomy can also be understood differently across countries (see the recommendations on setting a common understanding).

Need: Improving existing bioeconomy value chains and developing new ones on the basis of experience.

There is a need to experiment with the bioeconomy, report where it does not work, identify and acknowledge good practices and promote them.

How the RDP can help: To set up pilot projects to develop new monitoring approaches or new approaches to projects integrating lessons learned. Relevant measures: M16.2 – Pilot projects.

Other complementary measures: Through LIFE+ and H2020 research activities, pilot approaches can be tested to complement CAP-supported initiatives.

Areas for improvement: At the moment there is a cycle of supporting good practices, but not a recognition that these should become the norm or mainstreamed as common approaches.

Need: Enabling actors to manage farm and forest land sustainably and to conserve and promote genetic diversity that contributes to the bioeconomy and its resilience.

How the RDP can help: To support actors with the investment needed to manage land in a sustainable way, to ensure that the production of biomass and the provision of bioeconomy services also benefit the wider environment. Relevant measures: M4.4 – Non-productive investment for agrienvironment-climate objectives; M10.1 – Agri-environment-climate payments; M15.1. – Forest-environment-climate payments; M15.2 – Conservation of forests genetic resources.

RDP can also help enable increased genetic diversity and potential future bioeconomy value streams, as well as greater

potential resilience and adaptation to future challenges (on farms). Relevant measures: M10.2 – Conservation of genetic resources.

Other complementary measures: Through LIFE+ and H2020 research activities, pilot approaches can be tested to complement CAP-supported initiatives.

Example: Pilot sustainability criteria for the use of forest and non-forest biomass resources – Austria.

Need: Conversion and maintenance of land management systems with potential access to new sustainability markets.

How the RDP can help: To establish bioeconomy value chains on the back of organic production systems. Relevant measures: M11 – Organic production.

Other complementary measures: Through LIFE+ and H2020 research activities, pilot approaches can be tested to complement CAP-supported initiatives.

Need: Support for more service-based bioeconomy value chains.

How the RDP can help: To support plans for diversification of activities towards sustainable tourism, for example. Relevant measures: M7 – Basic services and village renewal measures; M19 – LEADER.

Other complementary measures: ERDF Support for added value of tourism, understanding and access to the forest environment.

Other needs identified by the Thematic Group to enable monitoring, evaluation and learning to improve sustainability in bioeconomy value chains that cannot or are not currently widely addressed directly through RDPs.

- To enable the use of certification and monitoring for 'added value' in the bioeconomy. Often EU funding is used for projects and investments but could be used to create an enabling and reporting framework to show the added value generated from public expenditure.
- To enable the complementary and consistent use of funds it may be necessary to identify cross-cutting sustainability baselines, standards and good practices relating to the bioeconomy (operating across funds as e.g. EAFRD, ERDF and H2020).
- To be specific about what is meant and intended by the term 'sustainability'. For example, this could usefully be broken down into resource efficiency, environmentally responsible land management, social welfare, degree of circularity within the chain and other elements.
- To recognise that sustainable land management and sustainable resource management are different parts of environmental sustainability and that both need to be addressed in order for the bioeconomy to develop within natural limits. There are relatively few cases where RDP funds have been or could be used to support sustainable resource use and management, as opposed to sustainable land management, where support is more common.
- To ensure that existing monitoring and evaluation tools are being used effectively and can be applied to new (or existing) bioeconomy initiatives. This can help build on existing networks and structures and make sure that information collected for one purpose can be used for others, too.
- To enable the effective monitoring of the whole value chain to look more holistically for areas of good practice and areas that need to be improved. This can include different stages of the value chain (from production and processing to marketing), as well as the tools used to promote the bioeconomy.
- To develop the connection between agri-environmentclimate measures of the CAP and commercial ecosystem service delivery.

(i) FOR FURTHER INFORMATION

The ENRD Thematic Group also produced the following documents:

- > 'European rural bioeconomy: policy and tools' (briefing)
- 'Exploring the role of awareness-raising and communication in promoting the development of sustainable bioeconomy value chains' (briefing)

All documents are available for free download from the **ENRD** website.

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