



BRILIAN

Circular Future for Rural Areas

Bioeconomy roadmap: legal framework (first bulletin)

Deliverable 3.3

WP3 Routes for the development of a sustainable bioeconomy



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Europe
Joint Undertaking



Bio-based Industries
Consortium



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EXECUTIVE SUMMARY

This paper serves for Brilian partners, for external stakeholders including policy makers, to understand the rapidly evolving policy and legislative scenarios developing in the European Union and its institutions which relate to policies that may impact the rural bioeconomy. This Deliverable is included in WP3 Task 3.3 and contributes to other Tasks and activities such as helping to inform the discussion with the Advisory Board for Farmers, Task 2.4 Social Innovation, the assessment of market conditions in Task 2.3 and Business Models in Task 4.1, the Assessment of trade-offs and synergies in Task 3.2, the Policy and Standards Proposals in Task 3.3, The Regulatory Market Readiness assessment in Task 6.3 as well as communication and dissemination activities in WP7.

The Policy Bulletin is the first of five that will be produced during the four years of the project. This edition has been drafted following the Policy Workshop organised by BRILIAN in Brussels on March 13th, 2024, in which issues related to the rural bioeconomy were discussed with external experts. These included representatives the European Commission DG GROW, JRC, CBE JU, European Bioplastics, FEAD, ZWE, MWE, BASF. ¹ Further it builds upon analysis published in May 2024 ²of the policy landscape in the EU highlighting areas of challenges and opportunities for the bioeconomy.

Objectives

The principal objective of this first Policy Bulletin is to illustrate in a concise form the development of European legislation that may have impacts upon rural bioeconomy development and bio-based initiatives deployment at European level. In this sense, the document will focus upon the priorities related to bioeconomy.

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Points 1 to 4 of this paper will look at the overriding strategic direction of European policy when related to the Bioeconomy.

Point 5 will illustrate the impacts of legislation that has been passed or is being tabled, upon the Bioeconomy.

Point 6 looks at the open European consultation processes stakeholders should be aware of and respond to.

¹ <https://brilian.eu/brilian-policy-workshop-seeds-of-change-in-rural-areas/>

² <https://brilian.eu/shaping-circular-rural-bioeconomies-insights-from-brilian-policy-bulletin/>



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LIST OF ABBREVIATIONS AND ACRONYMS

ABI – Actions for Bio-Innovation

BIC– Bio-based Industries Consortium

BRILIAN – Cooperative and Sustainable business models for bio-based chains in rural areas

CAP – Common Agricultural Policy

CCUS – Carbon Capture Usage and Storage

CER – Code Européen des Déchets (European Waste Code)

CBE-JU – Circular Based Europe Joint Undertaking

EBB – European Bioeconomy Bureau

EC – European Commission

ECR – European Conservatives and Reformists Group

EP – European Parliament

EPP – European People’s Party

ESPR –Ecodesign for Sustainable Products Regulation

EU – European Union

MEP – Members of the European Parliament

MFF – Multiannual Financial Framework

NGO – Non-Governmental Organization

PFAS – Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

PPWR – Packaging and Packaging Waste Regulation

REACH – The Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals

REDII – Renewable Energy Directive II

SDG – Sustainable Development Goal

WFD – Waste Framework Directive

WP – Work package

WTO – World Trade Organization

INTRODUCTION TO THE BRILIAN PROJECT

Currently, rural areas cover approximately 80% of the European Union's territory, containing 30% of its population (137 million people) and therefore they play a key role in improving sustainable bio-based value chains. In parallel, climate change and resource scarcity have made agricultural residues, by-products, and waste gain attention as a renewable, abundant, and sustainable feedstock, enabling regional stakeholders in rural areas to create sustainable cooperative business models while reducing their dependence on fossil fuels and pollution levels. Nevertheless, the vertical integration of the bio-based chains in rural areas is a complex task that implies cooperation among actors with different profiles and overcoming many barriers (high capital requirements, operation of complex technologies, specialized workforce, cooperation with technology providers, sales channels, develop optimized short and sustainable logistic chains,...) that need to be addressed by farmers to convert the wastes and by-products produced and subsequently, to sell the respective bioproduct to final consumers. In this sense, the creation of a more sustainable, competitive and resilient Europe requires robust rural bio-communities.

In this context, vertical integration of primary producers in bio-based systems is needed to increase farmers market power and to pave the way towards a full cooperation between regional stakeholders (primary producers, feedstock conversion actors, bioproducts end users and policy makers) in rural areas. Supporting this integration and promoting the bioeconomy in rural areas is a priority for BRILIAN, in particular, given the opportunities it presents for job creation, diversifying primary producers' income, and encouraging rural regeneration.

Objectives

The BRILIAN project has been conceived to support the **adoption of sustainable and cooperative business models in rural areas**, to incorporate agricultural by-products valorisation, seeking to increase and diversify primary producers' income. These business models will contribute to enhance rural development, biodiversity preservation and climate-neutrality, easing a smoother transition towards bio-based economies. It plays a fundamental role in revitalizing these regions and promoting sustainable economic and social development by transforming primary producers into active players in the supply chain, aligned with the goals outlined in the Common Agricultural Policy (CAP), the Green Deal, and the European Bioeconomy Strategy.

In this sense, using biomass to produce food, materials and energy can contribute to boost rural communities, increase competitiveness and combat many of the challenges that the EU is faced with, including climate change, fossil-fuel dependency and food security.

For this aim, BRILIAN is establishing 3 cooperative pilots working with 10 value chains for the validation of a group of actions for bio-innovation (ABI), which will enable the proposition of specific cooperative business models. The design of these business models requires the consideration of the policy framework to achieve a more successful implementation and resilience. Furthermore, the policy briefs aim to provide a summarize overview and analysis of most relevant policies and regulations impacting the potential activity of primary producers involved in the deployment of bio-based initiatives.

The principal objective of this first Policy Bulletin is to illustrate in a concise form the development of European legislation that may have impacts upon rural bioeconomy development and bio-based initiatives deployment at European level. In this sense, the document will focus upon the priorities related to bioeconomy.

The Policy Bulletin aims to serve the partners of BRILIAN to foster understanding of the policy frameworks in which the rural bioeconomy functions, showing opportunities and challenges from a rapidly evolving policy landscape across the EU. The Bulletin also serves for external stakeholders and policy makers to understand the complexity within which rural actors operate, and to help shape future policies so they take those complexities into account.

1. INTRODUCTION AND POLITICAL LANDSCAPE

In June 2024, citizens of 27 nations across the EU elected a new European Parliament. The outcome of the election was as follows:

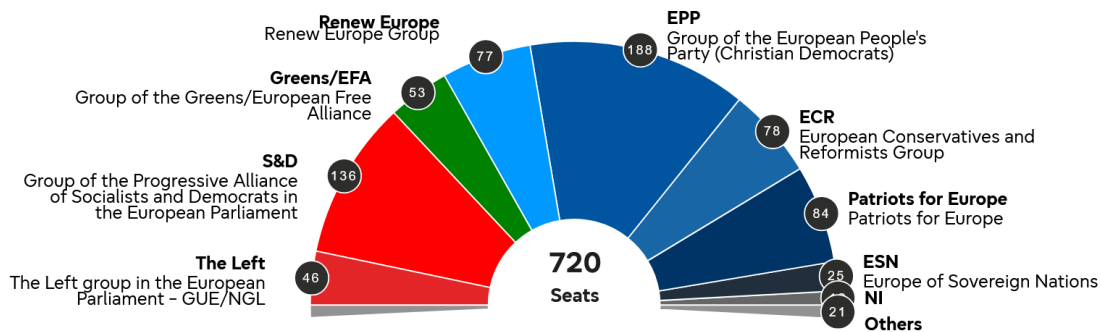


Figure 1 The composition of the European Parliament after June 2024 Elections³,

As is evidenced by the graphic no single group has a majority. The mainstream groups that have dominated European politics in the past legislature remain dominant despite gains from right wing parties in certain countries.

On 18 July, the European Parliament formally elected Ursula von der Leyen for a second mandate as President of the European Commission (2024-2029), with 401 Members of the European Parliament in favour and 284 against. These figures show that von der Leyen gathered political support of almost all seats in her alliance made of the centre-right European People's Party the Liberals (Renew), Socialists, but also the Greens, potentially giving these a place in the alliance. A large majority of MEPs from European Conservatives and Reformist Party and Patriots announced that they voted against her.

President von der Leyen started made her re-election statement reflecting upon the past five years by highlighting events like the proposal of NextGenerationEU, Ukraine President Zelensky's appearances, and tributes to Alexei Navalny and David Sassoli. In terms of current challenges, she emphasised the importance of choices in shaping Europe's future and stressed the need for Europe to protect its democracy, invest in security, and embrace change for prosperity. She also recognised the anxiety and uncertainty among Europeans due to cost of living, housing and environmental

³ <https://results.elections.europa.eu/en/index.html>

concerns, and geopolitical tensions. She expressed commitment in addressing these issues and maintaining a strong Europe.

Strategic Considerations

- Von der Leyen gained the MEPs support based on the political guidelines that will serve as the foundation for her policy agenda for the next 5 years.
- The guidelines focus very heavily on competitiveness and industrial policy. However, the green-tech aspects are significantly pumped up compared to the strategic priorities agreed by Member States in June, with von der Leyen clearly making the case for the Green Deal as the core of the EU “new growth strategy”.
- On the European Green Deal, a strong focus was put on the need for an effective implementation, while keeping pragmatism, technology-neutrality and innovation as cornerstones. Von der Leyen also emphasized the fact that Europe has tripled investments in clean technologies during the last 5 years. Furthermore, a new Circular Economy Act is announced in the political guidelines, aimed at creating a market demand for secondary materials and a single market for waste, notably in relation to critical raw materials.
- Particularly on chemicals, the guidelines point at a new chemicals industry package, intended to simplify the current Regulation on chemicals (REACH) and provide clarity relative to PFAS.
- Although von der Leyen did not make any reference to trade policy during her election speech, the political guidelines do highlight the need for a reformed and strengthened World Trade Organisation, more ambitious trade agreements and the continuation of free and fair-trade links with growth centres and partners at international level.
- Both the guidelines and the speech emphasize the need for additional investments and funding to support digital and green technologies. However, the commitments remain quite generic and will depend upon the upcoming budget negotiations for the new long term multiannual financial framework
- The reference to the Green Deal implementation has granted von der Leyen the support of most of the Greens. It might open the door for Teresa Ribera (currently Spanish minister for the ecological transition) to gain the

appointment of head of the Energy and Environment portfolio in the new Commission (see below).

Next steps

Von der Leyen has presented her list of Commissioners to the European Parliament on September 17th, 2024. The chosen Commissioners will appear before parliamentary committees in hearings on their prospective fields of responsibility (e.g. the Transport Commissioner will be heard by the European Parliament Committee in charge of Transport).

Here are the nominated Commissioners.

Austria - Magnus Brunner - Commissioner for Internal Affairs and Migration

Belgium - Hadja Lahbib - Commissioner for Preparedness and Crisis Management

Bulgaria - Ekaterina Zaharieva - Commissioner for Startups, Research and Innovation

Croatia - Dubravka Šuica - Commissioner for the Mediterranean

Cyprus - Costas Kadis - Commissioner for Fisheries and Oceans

Czech Republic - Jozef Sikela - Commissioner for the International Partnerships

Denmark - Dan Jørgensen - Commissioner for Energy and Housing

Estonia - Kaja Kallas - Executive Vice-President for Foreign and Security Policy and High Representative for Foreign Affairs and Defence Policy

Finland - Henna Virkkunen - Executive Vice-President for Tech Sovereignty, Security and Democracy, Commissioner for Digital and Frontier Technologies

France - Stéphane Séjourné - Executive Vice-President for Prosperity and Industrial Strategy, Commissioner for Industry, SMEs and the Single Market

Germany - Ursula von der Leyen - European Commission President

Greece - Apostolos Tzitzikostas - Commissioner for Sustainable Transport and Tourism

Hungary - Olivér Várhelyi - Commissioner for Health and Animal Welfare

Ireland - Michael McGrath - Commissioner for Democracy, Justice and the Rule of Law

Italy - Raffaele Fitto - Executive Vice-President for Cohesion and Reforms, Commissioner for Cohesion Policy, Regional Development and Cities

Latvia - Valdis Dombrovskis - Commissioner for Economy and Productivity; Implementation and Simplification

Lithuania - Andrius Kubilius - Commissioner for Defence and Space

Luxembourg - Christophe Hansen - Commissioner for Agriculture and Food

Malta - Glenn Micallef - Commissioner for Intergenerational Fairness, Culture, Youth and Sport.

Netherlands - Wopke Hoekstra - Commissioner for Climate, Net-Zero and Clean Growth, also responsible for taxation

Poland - Piotr Serafin - Commissioner for Budget, Anti-Fraud and Public Administration

Portugal - Maria Luis Alburquerque - Commissioner for Financial Services and the Savings and Investment Union

Romania - Roxana Mînzatu - Executive Vice-President for People, Skills and Preparedness, Commissioner for Skills, Education, Quality Jobs and Social Rights

Slovakia - Maroš Šefčovič - Commissioner for Trade and Economic Security; Interinstitutional Relations and Transparency

Slovenia - Marta Kos - Commissioner for Enlargement, also responsible for the eastern neighbourhood and Ukraine's reconstruction

Spain - Teresa Ribera - Executive Vice-President for Clean, Just and Competitive Transition, Commissioner for Competition

Sweden - Jessika Roswall - Commissioner for Environment, Water Resilience and a Competitive Circular Economy

The full Commission, including the Commission President and the High Representative for Foreign Affairs and Security Policy (former Prime Minister of Estonia Kaja Kallas), then need approval in a single vote of consent by Parliament, most likely in November 2024.

When the Parliament approves the College of Commissioners, the European Council, acting by a qualified majority, formally appoints them. The Commission would then take office on 1 December 2024.

It can be foreseen that major legislative proposals are unlikely in 2024 while everyone finds their feet and gets used to their roles.

Recent policy statements related to Bioeconomy

The Belgian Presidency (first half of 2024) had placed Bioeconomy as a policy goal in their six-month Presidency⁴. They stated:

“The Belgian Presidency will focus on advancing a sustainable and circular economy. To further the green transition and to improve product circularity and energy performance, any remaining work on the Ecodesign for Sustainable Products Regulation (ESPR) will be finalised. The Presidency will explore the untapped potential of the bioeconomy, circular manufacturing, circular materials and material footprint reduction, as well as hydrogen and carbon capture usage and storage (CCUS) in achieving a sustainable net-zero European industry.”

Following up on this, the Antwerp Declaration for a European Industrial Deal⁵ signed and delivered on February 20th, 2024, by a large coalition of industries to the EU President and the Belgian Presidency, underlined the importance of the bioeconomy and biotechnologies. The statement from CBE JU says:

“Today’s declaration acknowledges the role of the biobased sector in strengthening Europe’s industrialisation and in achieving the European Green Deal objectives by greening industrial processes and promoting circularity, while at the same time supporting a Just Transition through the creation of new high-skilled green jobs and revitalising rural and coastal areas. However, significant challenges remain for the sector to move from the laboratory and demonstration to upscaling, commercialising and replication of first-of-their-kind biorefineries which can provide consumers with new innovative circular products while at the same time increasing Europe’s technological leadership, reducing external dependencies on strategic imports and delivering the climate solutions Europe needs.”

The recognition of the Bioeconomy in these two statements is evident but the need for it to be highlighted shows in fact a weakness: the Bioeconomy has long been ignored as a potential solution to the industrial, climatic and ecological issues Europe is facing. The

⁴ https://belgian-presidency.consilium.europa.eu/media/3kajw1io/programme_en.pdf

⁵ <https://antwerp-declaration.eu/>

EU has a lot of lost ground it needs to make up to match the ambitions of the USA and China in using biobased feedstocks to make innovative materials. The emphasis of the CBE-JU on scaling up and market access is a critical point that bioeconomy experts have been making for some years, including the EBB. At least there now appears to be a recognition of how far the EU is behind its global competitors and this is reason to be optimistic.

On the 20 March 2024, the European Commission presented the Biotechnology & Biomanufacturing Initiative titled “Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU” (see Chapter 3.1). If Europe is to succeed, this Initiative must rapidly transform ‘rhetoric’ into policy and legislation action for competitiveness, enabling innovators to thrive and grow, and creating long term investment into infrastructures, employment and skills in Europe.

Whilst we welcome the positive start, we call for immediate action to address many of the bottlenecks that already create a drag on investment, scale up and market access, which in turn limit citizen and economic benefits. Studies and reports tomorrow are not a replacement for action today, especially when we can improve implementation of current regulations right now across EU and Member States. The Initiative should also be more ambitious for investment growth, particularly for scale up and technology maturation to market, and it should also be explicit and vocal on technologies that it seeks to champion if the EU is to lead informed and engaged public narrative. The Commission is committed to developing an appropriate legislative framework by the end of 2025, which could provide an appropriate basis for the revision of the Bioeconomy Strategy.

Worth mentioning in these contexts are the declaration of the Environmental Ministers of G7 meeting in Italy April 29th and 30th 2024 which includes three paragraphs (34-36) on the bioeconomy and in particular:

“We will thus promote circular and sustainable bioeconomy solutions to contribute to sustainable production of food, raw biological materials, bio-products in line with our overall effort to halt biodiversity loss, fight climate change and avoid practices that

contribute to deforestation, forest loss and land degradation, pollute or harm ecosystems and their services.”⁶

In July 2024, the Presidency of the EU has transferred to Hungary. Hungary has announced its intention to build upon the experience of the BIOEAST grouping and promote bioeconomy research in the eastern countries of the Union as part of its Presidency programme.⁷ Given that the next few months of activity in the establishing the Parliamentary governance will take up more or less the whole Brussels agenda, Hungary will not oversee any substantial policy announcements so its decision to promote the bioeconomy is welcome.

At the same time, it is worth noting that several national governments have in any case developed a Bioeconomy Strategy. These have been issued partly as a result of the two Bioeconomy Strategies published by the EU in 2012⁸ and 2018⁹, partly to give impetus to national industries.

There are national bioeconomy strategies covering almost half of the EU’s nations: in Austria, Estonia, Finland, France, Germany, Ireland, Italy, Latvia, Netherlands, Portugal, Spain and Sweden¹⁰.

Therefore, we can say that at a strategic level the importance of the bioeconomy appears to be consolidated.

The issue then becomes, how is this strategic overview implemented? What policy decisions are needed to make the vision an industrial and economic reality?

⁶ <https://www.g7italy.it/en/the-ministerial-meeting-on-climate-energy-and-environment-ends-with-the-adoption-of-a-joint-communiqué/>

⁷ <https://sciencebusiness.net/news/circular-economy/hungary-promote-bioeconomy-research-partnership-central-and-eastern-europe>

⁸ <https://op.europa.eu/en/publication-detail/-/publication/1f0d8515-8dc0-4435-ba53-9570e47dbd51>

⁹ https://knowledge4policy.ec.europa.eu/publication/new-bioeconomy-strategy-sustainable-europe_en

¹⁰ <https://bioeconomyassociation.org/bioeconomy-in-action/global-biostrategies/>

2. WIDER POLICY CONSIDERATIONS- GREEN DEAL, CIRCULAR ECONOMY, CAP, CLIMATE LAW GOALS

We should understand that EU policy since 2019 has been driven by over-riding considerations derived from the Green Deal (in which Circular Economy is included) and the CAP. New goals for climate neutrality have also been established as over-arching targets for all EU policies. This section intends to make a short summary of these to contextualise subsequent policies and announcements. What the exact policy priorities of the new Presidency will be for 2024-2029 are yet to be announced, however, from the debates taking place in Brussels, it is clear, as illustrated above, that a new emphasis will be placed upon industrial strategy, jobs, and productive capital investments.

In this context we should consider the review which the EU President von der Leyen asked Mario Draghi to make regarding the competitiveness of Europe. In his 400-page report, titled “The future of European Competitiveness”¹¹ presented on September 10th, 2024, he outlined five key points to improve EU competitiveness with other major trading blocks (Asia and the USA):

1. Finance. The EU needs to invest more in the “green” transition, in digital and defence industries which means that the countries need to agree to issue debt underwritten by all nations. (Note, Germany has already said it would never agree to this).¹²
2. The EU must reduce its economic reliance on China, for example, for computer chips, electric cars, solar panels.
3. We are failing to bridge the gap with the USA on bringing innovation to market. He said “*The problem is not that Europe lacks ideas or ambition (...) but that innovation is blocked at the next stage: we are failing to translate innovation into commercialisation*”. This is a common complaint by those working on innovative bio-based materials in the bioeconomy context and is an evident Europe-wide issue not limited to bioeconomy.
4. The EU requires a coordinated industrial strategy to avoid off-shoring of industries and jobs. However, coordination in the present political scenario is proving very difficult.

¹¹ [EU competitiveness: Looking ahead - European Commission \(europa.eu\)](#)

¹² [Germany’s Lindner rejects Draghi’s common borrowing proposal – POLITICO](#)

5. Therefore, EU decision-making processes need to be reformed to give greater focus. Draghi highlighted at the press conference that as of 2019, the EU had passed approximately 13,000 pieces of legislation, compared to 3,000 laws and 2,000 resolutions in the US. This prompts reflection: can we streamline our efforts and prioritize more effectively?

Draghi's paper will serve as a context which the Commission will need to take into consideration once it is fully operative in 2025. For those working in the field of bioeconomy, the call for greater coordination, faster decision-making processes, investments to bring products to market, are all points that have been made multiple times by producers and associations.

2.1. The Green Deal¹³

Announced in 2019, the Green Deal established a long-term plan to deliver climate neutrality to the whole EU by 2050, a decoupling of economic growth from resource use, and a social programme to ensure inclusivity and poverty reduction.

Specific targets include investments (post Covid recovery) of €600 billion, an energy transition towards renewables, clean industrial production, modernised transport systems, promotion of healthier food production and the stimulation of innovative climate friendly industries through investments in research and innovation.

Circular Economy¹⁴ falls within the scope of the Green Deal as the means through which industries access raw materials, reducing dependence upon imports, as well as recycling and reusing those to maximise resource efficiency and reducing waste. In this sense CE policies enacted through instruments such as the Packaging and Packaging Waste Regulation, the Waste Framework Directive, as outlined below in this text. These follow from the CE action plan approved in 2020 as one key pillars of the Green Deal.

It can be noted that the backlash against the enacting policies of the Green Deal in the last months of the administration in 2024 has been significant, as can be seen below. Policies within the CAP, related to nitrates and soil quality have been weakened to take into account the opposition from farmers struggling with the implementation of stricter ecological controls, especially in view of the elections in June 2024. The last minute saving of the Nature Restoration Law brought a sigh of relief to those wishing for greater

¹³ https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

¹⁴ https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en

environmental protection. How the new European political scene will look after the establishment of the Commission's governance is of course impossible to predict but further dilution of "The Green Deal" is one possible outcome.

2.2. Common Agricultural Policy¹⁵

The current CAP came into force in 2023 and lasts through to 2027. Noting that farmer incomes are much lower than EU averages, the CAP aims to support farmers through income support, market measures to avoid price collapses, and funding to develop the rural economy. There are 10 million farms in the EU with around 9 million people directly employed. The CAP budget dedicated to these measures consists of circa €380 billion over the five years representing 35% of total EU spending- for a portion of the population representing circa 4% of the total workforce. ¹⁶ The recent protests by farmers against EU policies demonstrates that the massive amounts spent on farmer support seems not to be translated into a perception of real benefits.

The CAP obliges farmers to help tackle climate change, manage resources sustainably, safeguard biodiversity, and maintain rural areas and landscapes while producing incomes enabling a decent lifestyle. These ambitions and targets are further laid out in the Farm to Fork Strategy¹⁷ and the Biodiversity Strategy¹⁸ published by the Commission and adopted in November 2023, the latter laying down the framework for the both the Nature Restoration and the Soil Health laws explained in the text below.

Farmers are therefore under increasing pressure to reduce (for example) emissions to air, soil and water not only for climate change reasons but also to reduce pollution from eg nitrates; to reduce use of pesticides to improve biodiversity and reduce health impacts from residues; to improve animal welfare; to dedicate more land to allow biodiversity to flourish; to change land use, eg planting more trees. Organic farming is also promoted, with a target to achieve 25% of all land under organic farming by 2030, a massive leap from current practice.¹⁹

¹⁵ https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance_en

¹⁶ <https://www.europarl.europa.eu/factsheets/en/sheet/104/the-common-agricultural-policy-in-figures>

¹⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0381>

¹⁸ https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en

¹⁹ https://agriculture.ec.europa.eu/farming/organic-farming/organic-action-plan_en

The CAP, Climate Goals and the Green Deal have also led to the 2023 revision of the regulation of land use change and forestry known as LULUCF²⁰, which aims to reduce 310 million tons of CO₂ emissions by 2030, representing some 15% of all EU emission reductions targets, through mechanisms such as carbon farming (see below) and changing agricultural practices. A Land Study shows how member states can achieve this target²¹ and how the new Bioeconomy Strategy contributes²².

On April 24th MEPs voted a barely noticed amendment to the CAP which loosens the rules on farmers need to respect GAEC (Good Agricultural and Environmental Conditions)²³. This change has been made specifically to respond to farmers' unrest over their environmental burdens and has been heavily criticised by NGOs for being unscientific and above all, without wide consultation.

Further, the Commission, noting the farmers concerns, in January 2024 asked an independent group of experts, long with NGOs and representative associations, to meet to discuss a wholesale reform of the CAP - the Strategic Dialogue on the Future of EU Agriculture²⁴. This group presented its report on September 4th, 2024, and the interesting aspect is that there were unanimously approved statements calling for major reforms of the CAP- from NGOs and farmer associations that have generally not seen eye-to-eye.

The report has 14 main recommendations²⁵. Whilst this document does not bind the Commission to act, it nevertheless lays down a clear path to reform of the CAP when this comes for discussion in 2025- as the current CAP expires in 2027.

Recommendations related to the Brilian project include:

1. Promoting environmental and social outcomes with a focus on rural development

²⁰https://climate.ec.europa.eu/eu-action/land-use-sector_en#eu-rules-on-land-use-land-use-change-and-forestry-lulucf

²¹<https://op.europa.eu/en/publication-detail/-/publication/a21ad24a-eaff-11ed-a05c-01aa75ed71a1/language-en>

²²https://research-and-innovation.ec.europa.eu/research-area/environment/bioeconomy/bioeconomy-strategy_en

²³[Conditional - European Commission \(europa.eu\)](https://ec.europa.eu/eu-press/conditional-ec-revises-requirements-good-agricultural-environmental-conditions_en)

²⁴https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/main-initiatives-strategic-dialogue-future-eu-agriculture_en

²⁵https://www.feednavigator.com/Article/2024/09/04/The-future-of-EU-agriculture-14-key-recommendations-unveiled?utm_source=copyright&utm_medium=OnSite&utm_campaign=copyright

2. Mobilising public and private funds for a just transition to a more sustainable agriculture.
3. Promote practices that support ecosystems, reduce external inputs, and advance decarbonisation, including supporting organic farming and nature restoration.
4. Set specific goals for the reduction of GHG emissions.
5. Promote water-resilient agriculture and plant breeding to adapt to climate change.
6. Boost innovation, technology and knowledge sharing in the farming sector.

As can be read in the Draghi report on European competitiveness, many issues cross over into agriculture- boosting innovation and technology, coordinating specific goals, mobilising funding. These issues are structural to the EU, not simply limited to a sector.

To conclude, the multiplication of norms, strategies and regulations which impact the rural economy is such that it cannot be expected for farmers to analyse and understand them fully: - farming communities, tied as they are to cycles involving weather, crops, animal husbandry, markets, rely upon information and interpretation of policies through their associations and unions. The complexity is quite astonishing and if there is a recommendation to be made for rural communities, it could be that all these policies are illustrated in a logical sequence, clearly highlighting obligations and support mechanisms. The report delivered to the Commission on September 4th is a very welcome first step to a reasoned and logical series of steps towards making farming more ecologically sustainable whilst improving economic outcomes for farmers.

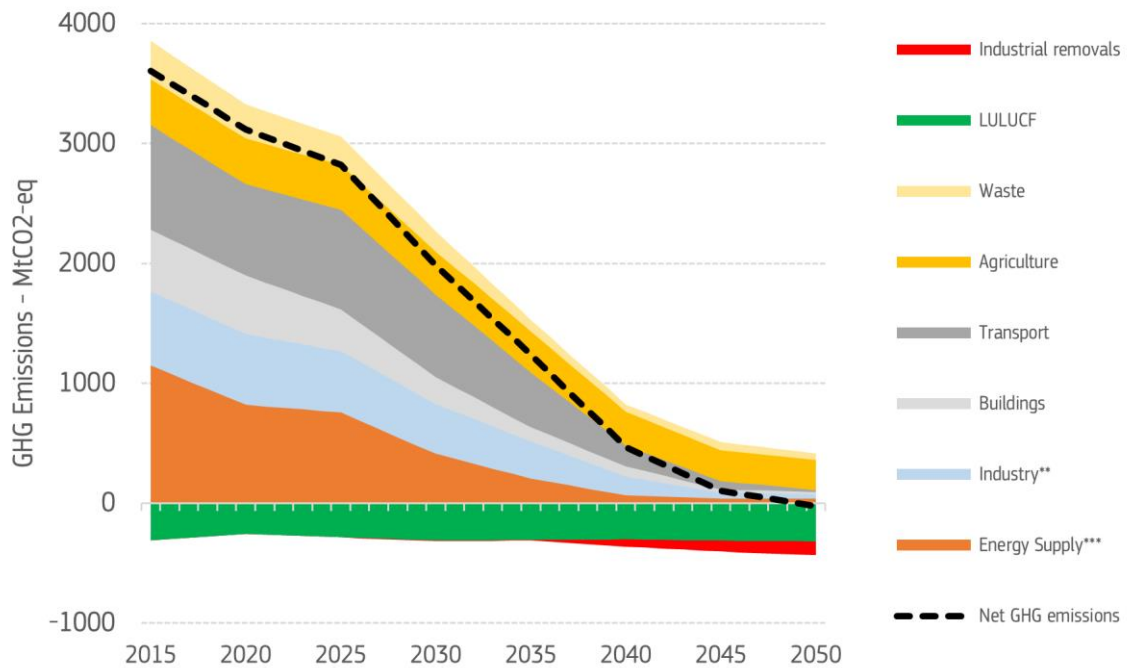
2.3. Climate Goals

The new announcement by the Commission in February 2024 of its long-term climate goals created some considerable debate among NGOs and other stakeholders.

The overall ambition is high: to reduce net emissions 90% by 2040 compared to 1990. Agriculture and land use are seen as the largest contributors to this reduction, illustrating graphically the pressure rural economies will be under to change practices. Whilst emissions from energy supply are estimated to fall to zero, thanks to renewables; and from industry to fall near to zero thanks in part due to renewable energy but also off-shoring, agriculture has to find other routes to reduce emissions- energy is just a part of the rural economy's emissions.



Greenhouse gas emissions in the period 2015-2050*



*Source: PRIMES, GAINS, GLOBIOM

**Excluding non-BECCS industrial removals

***Including Bioenergy with carbon capture and storage (BECCS)

Figure 2 Greenhouse Emissions Targets in the EU 2015-2050. Source: PRIMES, GAINS, GLOBIUM²⁶

Criticism related to the targets comes from NGOs and the journal Nature precisely because the reliance on carbon capture and removals (eg from land use) is as Greenpeace²⁷ states “dodgy accounting” and as Nature states, “untested”²⁸. Therefore, in the context of the rural bioeconomy, the emphasis on carbon removals presents both opportunities (new sources of incomes) and challenges (having to meet targets through new and unproven mechanisms).

²⁶ https://climate.ec.europa.eu/eu-action/climate-strategies-targets/economic-analysis/modelling-tools-eu-analysis_en

²⁷ <https://www.greenpeace.org/eu-unit/issues/climate-energy/46934/eu-2040-climate-plans-dodgy-accounting-and-magic-wands-to-hit-the-target/>

²⁸ <https://www.nature.com/articles/d41586-024-00391-3>

3. SPECIFIC MEASURES RELATING TO THE BIOECONOMY

3.1. Biotechnologies and Biomanufacturing

Recognising the impact of the USA Inflation Reduction Act in promoting the bioeconomy and therefore in drawing industrial investment towards the USA and away from the EU, the Commission has announced on March 20th 2024 a new biotech and biomanufacturing roadmap called Communication on Building the future with nature.²⁹

BIC and another 16 organisations have presented to the Commission their vision of what the Roadmap should look like.³⁰

There are currently 803 biorefineries in the EU, of which 363 produce liquid biofuels and 177 are integrated biorefineries that combine the production of biobased products and energy. In the Communication on Sustainable Carbon Cycles,³¹ the Commission announced that at least 20% of carbon used in chemical and plastic products will come from sustainable non-fossil sources by 2030. The Commission's Communication on a Green Deal Industrial Plan for the Net-Zero Age also refers to the development of biobased substitutes.

What are the key points outlined in the new Commission Strategy paper?

There are several key messages of interest to the Brilian partnership and targeted Stakeholders (such as the actors involved in the ABF) and those interested in the development of bioeconomy industries. The most relevant topics have been highlighted as follows:

1. Boosting innovation. This means that funding for more research and product development will presumably be available.
2. Market pull. This is a request from the sector to the Commission going back years- how to overcome the gap between research and market?

The Commission foresees a series of instruments to answer this demand although none of these are short term solutions- they aim to “review the assessment of fossil-based and biobased products to ensure equivalence of

²⁹ COM(2024) 137 final https://ec.europa.eu/commission/presscorner/detail/en/ip_24_1570

³⁰ <https://biconsortium.eu/media/joint-statement-eu-initiative-biotechnology-and-biomanufacturing>

³¹ COM(2021) 800 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0800>

treatment and incorporate methodologies for carbon storage in construction materials. To accelerate the substitution of fossil feedstock and to **stimulate the demand and market uptake of bio-manufactured products**, the Commission will conduct an in-depth impact assessment of the feasibility of **biobased content requirements in specific product categories and in public procurement**. Furthermore, the Commission will explore how bio-manufactured non-food products could profile themselves better through labelling of biobased products.”

All of the above is useful, but very long term and slow.

3. Streamlining the Regulatory Framework and working towards an EU Biotech Act and a Biotech Hub to explore possible simplification and overcome commercial barriers. Again, to be welcomed, but not exactly a policy that will make investors immediately enthusiastic.
4. The paper then goes on to mention the need for more skills training, to foster private and public partnerships in investments, to ensure standards are aligned, improving international cooperation, supporting the uptake of AI and finally, with a review of the Bioeconomy Strategy by end 2025.

This important document lays down a pathway to facilitate the bioeconomy but does not offer a paradigm change in upscaling industries to become market leaders and substituting fossil carbon at scale in the short term. The fundamental element of market pull required to overcome the barrier of competition against heavily subsidised and established legacy fossil fuel industries, is missing from the policy documents.

3.2. A revised Bioeconomy Strategy in 2025

The last Bioeconomy Strategy published in 2018 is now clearly out of date, superseded by national strategies and by the new economic circumstances Europe faces after the Russian invasion of Ukraine. In any case the 2018 Strategy called for a review after six years, just as the 2012 Strategy led to the 2018 revision.

There is still a lack of a comprehensive regulatory policy approach. Coherent, clear, and consistent policy tools are needed to create a long-term pull and leverage for biobased products. The current policies and legislative frameworks support bioenergy, but not biobased materials and products (see below on the Biomass Strategy.) For example, the

BIP³² target of 35bm³ of biomethane by 2030 is a clear target with consequential policies, investments and incentives. Such a target for biobased products is missing.

The EU should implement the principle of cascading use of all sources of biomass if it is certified as sustainable fixing a “prioritisation” for the use of biomass and balance between bioenergy and biobased products. The incentives should account for the benefits that building biorefineries can bring to rural areas, as well as their capability to valorise side streams from agricultural and forestry biomass.

An actionable EU Bioeconomy Strategy, supporting a strong industrial base for biobased products, should be among the most important policy elements of the upcoming initiative on biomanufacturing to continue the path of a just and equitable ecological transition.

Harmonising regulations, supporting research and development, incentivising investment, stimulating market opportunities, and promoting sustainable feedstock sourcing should be essential components of the bioeconomy strategy providing strong support for the expansion of the EU’s manufacture of sustainably sourced bioplastics. This should be implemented through a Bioproducts and Biopolymers Industrial Action Plan.

Boosting sustainable biomass production to create climate-smart incentives for EU agricultural producers and forest landowners is a target. To achieve this, the framework of monitoring and assessment of innovative ideas and their applications needs to be expanded further considering the socio-economic aspects and unique characteristics of each ecosystem.

The revision of the Strategy is an opportunity for all stakeholders, including those in the Brilian partnership, to feed into the consultation process and indicate priorities and policy requests.

³² <https://bip-europe.eu/>

4. A BIOMASS STRATEGY?

The focus of EU policy related to biomass has generally been determined by energy considerations- using biomass to provide renewable energy. This has in great part been stimulated by the Nordic countries whose vast forest industries seek alternative outputs to lumber and wood pulp and its by-products.³³ The revision of the Renewable Energy Directive in 2023 promotes a gradual shift away from conventional biofuels to advanced biofuels (mainly produced from non-recyclable waste and residues) and other alternative renewable fuels (e-fuels). The Biodiversity Strategy³⁴ recognises that chopping down trees to provide energy is not a long-term sustainable activity and that this use should be minimised, reducing the impact of forestry industries in harming biodiversity.

According to the Commission, biomass burning provides some 60% of EU's renewable energy resources, an astonishing amount³⁵ because in the debate about renewable energy it tends to go unnoticed- the focus is always on wind and solar or even nuclear power. Wood is the most important single source of energy from renewables in many Member States. Latvia (29%), Finland (24%), Sweden (20%), Lithuania (17%) and Denmark (15%) had the largest share of wood and wood products in gross inland consumption of energy (Eurostat 2018). Biomass burning is often heavily subsidised by the taxpayer, an amount estimated in 2022 to be €7bn a year³⁶; in 2022 the European institutions agreed to reduce the subsidies to zero by 2030 where the burning of whole trees is concerned.

How this will play out in terms of the development or decline of biomass as an energy source will be seen in the next few years.

We understand that Germany and France are developing national strategies for sustainable biomass use, prioritizing material production over energy generation. According to the Commission, the post-2040 EU climate strategy will also need to develop legislative tools to implement the cascading principle.

³³ https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/biomass_en

³⁴ https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en

³⁵ <https://op.europa.eu/en/publication-detail/-/publication/7931acc2-1ec5-11e9-8d04-01aa75ed71a1/language-en/format-PDF/source-228478685>

³⁶ <https://www.landclimate.org/the-problem-of-bioenergy-in-the-eu/>

From our point of view, (concerned with the Bioeconomy) these initiatives could fill the current strategy gap in steering the use of biomass towards the production of higher-value materials.

Mankind has always used non-food crops for the production of materials: from cotton, wool, flax for clothing and carpeting, to hemp for ropes, straw for thatched roofs, timber for furniture and boat and house building and so on. As biotechnologies have progressed, so has the variety of biomass that can be transformed into materials: from mycelium to algae, corn starch and sugars, lignin residues, industrial and household food wastes, spent vegetable oils and greases, even sludges from humans and animals. Many CBE-JU projects have developed research on these innovative materials and feedstocks. Moreover, if the goal is to meet “carbon neutral” and reduction of emissions across the EU, then the measures adopted should not simply look at fuel use, but also how materials are manufactured. Green chemistry, using biobased feedstocks, can substitute many materials made from oil and gas if the pricing and other measures stimulate that demand.

To date they do not; whereas biomass used for energy has enjoyed huge and continuous taxpayers funding, for biomass used as materials (even bringing organic carbon to soil) no such funding has been available.

This creates two outcomes: on the one hand, competition for biomass feedstocks is distorted by the incentives and subsidies. It is today in the EU far more profitable to take food waste to make biogas or advanced aviation fuel, than it is to make compost. Nevertheless, EU soils have an increasing deficit of organic carbon that can be replenished using compost. There is an obvious disconnect which distorts waste management systems and material development.

The second outcome is that materials produced from biomass feedstocks, whether wastes or virgin, enjoy no incentives or subsidies in the EU. Whilst the impact may be limited in terms of overall market demand, in the USA the USDA “Biobased Preferred Programme”³⁷ exists which promotes Government departments to preferentially purchase biobased materials and products through mandatory obligations; in the EU there is no such preference.

³⁷ <https://www.biopreferred.gov/BioPreferred/>

The need for Biomass Strategy that looks at overcoming the conflict between energy and material uses of biomass is an essential ingredient of the development of the European Bioeconomy. Without such a strategic overview, it is likely that a) biomass will continue to be favoured above all for energy needs and b) the use of non-fossil carbon for material production will be severely disadvantaged.

A strategy is needed to develop sustainability criteria for biomass, including proof of sustainable origin of biomass and expansion of REDIII criteria to other sectors than energy.

Legal anchoring of the cascading principle to the waste hierarchy (priority of material use over energy use); adaptation of laws, funding programs, and regulations are needed as well as enforcing the EU's mandatory separate collection of organic waste for composting/AD (by reviewing the WFD). In this regard, organic waste is a resource which is still largely landfilled or incinerated despite the obligation to separately collect and treat it, which entered into force in 2024.

Hopefully, a Biomass Strategy for materials will be discussed in 2025 at EU level and the outcomes achieved by BRILIAN could feed into this discussion .

5. ANCILLARY LEGISLATION.

This section of the report looks at individual pieces of European legislation that have been (or are being) adopted and how they impact the development of the Bioeconomy, in the context of using bio-based feedstocks for material production.

a) Packaging and Packaging Waste Regulation

The final version of the regulation was published on April 24th of 2024.³⁸ After its approval, the text will undergo legal checks and translations and will be published probably within the end of 2024. It is now certain that the process will therefore come to its logical conclusion, i.e. that there are no more political obstacles to the PPWR entering into force.

The initial reaction to the text is that compostable biobased plastics will continue to have a role in packaging within the EU. This is a major success given the opposition to such materials from some member states and associations, especially the main waste associations.

Indeed, the text mandates the use of compostable materials for sticky fruit and vegetable labels; allows member states to co-collect compostable packaging with food wastes; allows member states to mandate that only compostable teabags, coffee pods, light weight bags and carrier bags are on their market; requires member states to ensure compostable packaging put onto the market and not organically recycled is compatible with mechanical recycling; requires an update of the EN13432 standard and proposes an EU harmonised home composting standard; new labelling requirements will be imposed to ensure easier identification of products and to reduce cross contamination; Annex III lays down the conditions which govern the use of compostable packaging including that its use enhances organic waste collection; finally, those member states (eg Italy) which have already mandated the use of compostable materials in certain packaging applications may continue to do so, thus protecting status quo for these materials.

In conclusion, the text means that compostable packaging can be placed on national markets according to national mandates and that any lightweight bags, teabags, coffee pods and label must be compostable. Other compostable packaging must prove to be

³⁸ https://www.europarl.europa.eu/doceo/document/TA-9-2024-0318_EN.html

recyclable as well as compostable. Whilst those in the bioeconomy industries will most likely disagree with this outcome because there are fewer mandates than many would have wanted (eg all fresh food packaging), the sector does have a sizeable market especially in lightweight bags. Food waste collections will also enhance the use of compostable materials, ie as caddy liners (see Italy, Spain, Denmark, Ireland).

b) Waste Framework Directive (food waste)³⁹

Once more at the time of writing the WFD revision (from its current text dating from 2018) has been voted upon by the European Parliament and is awaiting the Council's view and a final Triologue agreement, within 2024.

The present text voted by Parliament impacts the bioeconomy only relatively, in the sense that it focuses upon two main areas: 1) establishing EU-wide Extended Producer Responsibility for textiles, to place the cost of collecting, recycling, and disposing of textiles upon manufacturers, distributors, and importers of clothing. This probably has a marginal impact only upon the rural bioeconomy.

The second pillar of the WFD is food waste, a critical component of the bioeconomy both in terms of impacts from food waste and as a feedstock for bioeconomy industries (bioenergy, composting, chemicals).

On food waste the Parliament adopted legally binding targets to reduce the amount of food waste by 40% by 2030, less than the SDG goal 12.3 of 50% but still very ambitious. No targets were adopted nor were any methodologies adopted on the separate collection of food waste, despite prior advocacy from various stakeholders, including EBB. Without collection targets, the EU will have a food waste reduction target and a food waste collection obligation, but without targets, making it meaningless.

Nevertheless, for the rural bioeconomy the implication of the food waste reduction target will mean less by-products and less food waste produced along the supply chain; at the same time, it might mean less feedstocks for certain industries such as biogas, composting, animal feeds, chemicals.

Industries which use food waste or food industry by-products are advised to review organic waste feedstock planning taking this reduction into account over the years.

³⁹ https://environment.ec.europa.eu/topics/waste-and-recycling/waste-framework-directive_en

The Directive makes no attempt to clarify the issues around end of waste criteria for food waste. This is a question which directly relates to bioeconomy industries- when is a material a waste, a by-product, or a product? The answer determines in part which materials can be used by certain industries- if a material is a waste, it cannot be used in certain applications due to laws determining waste management; if the same material is a by-product, it can be freely used as it no longer has waste status. Clarity on this is missing.

Further the Directive makes no attempt to classify biobased and biodegradable materials that do not have specific waste (CER) codes. This creates difficulty in identifying them for statistical terms but also in authorisations required by waste plants to treat them. This is a gap in legislation worth highlighting.

c) Renewable Energy Directive II⁴⁰

REDII⁴¹, the revised RED entered into force on November 20th, 2023, and proposes ambitious targets for the use of renewable energy in the EU: by 2030 there is a binding target of 42.5% renewable energy use.

Of particular interest to the rural bioeconomy is the future employment of bioenergy.⁴²

Bioenergies take several forms:

1. Biomass- the cultivation of biomass (mainly trees) or the use of biomass wastes and by-products as a combustion fuel.
2. Biofuels- the transformation of biomass and biomass wastes and by-products into liquid or gaseous fuels, for example for transport and as an aviation fuel.
3. Biomethane- the conversion of biomass through anaerobic digestion into biogas and upgrading to biomethane to use as an alternative to Natural Gas for heating or fuel.

On biomethane, the Commission, in partnership with the biogas industry, has laid down a target of 35bm³ of biomethane to be produced in the EU by 2030. This target is roughly 7-8 times production capacity in 2023 although a rapid scale-up of plant size and important flows of investor funding are boosting production. The Biomethane Industrial

⁴⁰ https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en

⁴¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023L2413&qid=1699364355105>

⁴² https://energy.ec.europa.eu/topics/renewable-energy/bioenergy_en

Partnership⁴³ is elaborating the policies needed to achieve this goal and the EBB is a member contributing to this work. For rural bioeconomy stakeholders, the ambition already translates into national incentive schemes to promote the capture of biogas from (for example) agricultural wastes and manures. The BIP is expected to enhance the marketplace through (for example) tradeable certificates and mutual recognition of biomethane standards across EU borders, facilitating trade and transport. Moreover, the impetus from national governments to stimulate production through advantageous fiscal incentives, is expected to grow.

Biomass burning and biofuels are well established uses of biomass to produce energy, the former dating to the origins of Mankind. Some controversy over the burning of biomass for energy on a large scale has led to many NGOs protesting the growth of this industry, heavily supported by the forestry industries of the Scandinavian nations. Loss of biodiversity, destruction of old growth forests, water pollution, illegal logging, uncertain accounting, are just some of the criticisms levelled at this industry. A recent International Energy Agency paper draws unfavourable conclusions about the sustainability of biomass burning.⁴⁴ For stakeholders of the Brilian partnership, we should caution those interested in making new investments in this sector.

For biofuels the distortive impact of incentives has led to the perverse use of feedstocks such as palm oil to blend with diesel as a vehicle fuel - the criticism of this being that the deforestation of tropical areas to grow palm oil is caused by the EU's target on renewable feedstocks in fuel. Until recently half of all palm oil imported into the EU was used as vehicle fuel.⁴⁵ In the USA about half of the total corn and soyabean crop is now used as fuel. The distortive impacts of incentives are outlined in a paper by the John Locke Foundation from 2023.⁴⁶

However, there are other forms of more sustainable feedstocks for biofuels which should be of interest to Brilian stakeholders, notably the use of waste oils (used cooking oils), greases and fats and extracts from the agri-industrial production chains. Whilst the movement towards the electrification of vehicles seems inevitable, the use of biofuels

⁴³ <https://bip-europe.eu/>

⁴⁴ <https://iea.org.uk/publications/trees-for-burning-the-biomass-controversy/#Conclusion>

⁴⁵ <https://www.transportenvironment.org/discover/record-levels-palm-oil-diesel-burning-food-fuel-madness-continues/>

⁴⁶ <https://www.johnlocke.org/research/in-the-tank/>

in other forms of transport such as aviation or even shipping appears to grow quickly.⁴⁷ Small but potentially rapidly growing investments are being made into using biofuels in maritime shipping.⁴⁸ The advice to rural bioeconomy stakeholders is therefore to keep a positive and open mind on the possible growth of this sector.

d) Soil Monitoring Law

EBB and other stakeholders have long highlighted the perilous condition of soils in the EU, harmed by intensive farming practices, excessive tilling and erosion, compaction and loss through urban expansion.

The November 2021 Soil Strategy published by the Commission partly answered the need to take a long term look at solutions to maintaining healthy soils and restoring unhealthy soils in the EU. The Strategy has as its key objectives that by 2050⁴⁹:

- all EU soil ecosystems are healthy and more resilient and can therefore continue to provide their crucial services
- there is no net land take, and soil pollution is reduced to levels that are no longer harmful to people's health or ecosystems
- protecting soils, managing them sustainably and restoring degraded soils is a common standard

These objectives would be achieved by, among others, a new Soil Health Law to be published in 2023. In July 2023 the Soil Monitoring Directive was proposed⁵⁰ which aims to:

- putting in place a solid and coherent monitoring framework for all soils across the EU so Member States can take measures to regenerate degraded soils
- making sustainable soil management the norm in the EU. Member States will have to define which practices should be implemented by soil managers and which should be banned because they cause soil degradation

⁴⁷ <https://corporate.virginatlantic.com/gb/en/media/press-releases/worlds-first-sustainable-aviation-fuel-flight.html>

⁴⁸ <https://www.dnv.com/expert-story/maritime-impact/Exploring-the-potential-of-biofuels-in-shipping/>

⁴⁹ https://environment.ec.europa.eu/topics/soil-and-land/soil-strategy_en

⁵⁰ https://environment.ec.europa.eu/publications/proposal-directive-soil-monitoring-and-resilience_en

- requesting Member States to identify potentially contaminated sites, investigate these sites, and address unacceptable risks for human health and the environment, thereby contributing to a toxic-free environment by 2050.

Whether the new EU Commission and Parliament will have the appetite for a Soil Law remains to be seen. Many nations are contrary to such legislation as they see soil, land, as a national and not European issue and are hesitant to put into place monitoring of soil health and use.

Nevertheless, for Brilian stakeholders the issue of soil health is an increasing concern—loss of biodiversity, organic carbon and fertility, as well as increased desertification, are all issues threatening the rural bioeconomy. They are also linked into legislative proposals around carbon farming and regenerative agriculture (for which see below section f).

e) Nature Restoration Law

Following a final vote in June 2024 at the Environmental Council, the EU adopted its new European Restoration Regulation⁵¹.

This unique new piece of legislation will be the first to set legally binding restoration targets for the long-term recovery of nature in Europe. Its overarching objective is to restore 20% of EU’s degraded ecosystems by 2030 and all by 2050, also adding time-bound targets for specific ecosystems, habitats, and species.

The EU Nature Restoration Law (NRL) builds upon current EU environmental policies, including the Birds and Habitats Directives, and actively encourages synergies with EU climate policies. Restoring our nature will also contribute to the EU’s climate commitments, enhance food security, promote ecosystem services, and meet the Union’s international commitments.

It aims to restore 30% of terrestrial, coastal, freshwater, and marine ecosystems to good condition by 2030. In forest and agricultural areas, Member States are required to put in place restoration measures to enhance several biodiversity indicators, and to restore and partially rewet 30% of drained agricultural peatlands, rewetting at least a quarter, by 2030. The EU NRL also includes targets an obligation to improve urban green spaces, contribute to free-flowing rivers by removing artificial barriers, increase pollinator populations and contribute to the target of 3 billion additional trees throughout the EU.

⁵¹ (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1991&qid=1722240349976>)

Finally, the law lays out specific targets for agricultural areas. These include, on the one side, goals to increase the population of grassland butterflies, farmland birds or the stock of organic carbon in cropland mineral soils. On the other side, the law also envisages increasing the share of agricultural land with high-diversity landscape features and restoring drained peatlands for agricultural use. Restoring natural habitats is essential to safeguard ecosystems' capacity to store and sequester carbon while reducing land-based emissions, and to enhance resilience to floods, droughts, extreme heat and erosion.

The Regulation foresees the need for Member States to prepare Nature Restoration Plans, which will outline how Member States plan to deliver on the targets of obligations, taking their national context into account. While drafting these Nature Restoration Plans, Member States also need to consider socio-economic impacts and benefits and estimate the financial needs for its implementation. Indeed, the NRL will also provide benefits and opportunities for landowners and managers who implement restoration measures, offering a framework to support their efforts and compensate them financially.

A full list of actions is to be found in this footnote.⁵²

f) Carbon farming

In November 2022 the Commission proposed the framework for the certification of carbon removals, a long-awaited move and a critical element for the rural bioeconomy- if farmers can certify their actions supporting carbon removal, they can presumably profit from this. In February 2024 an agreement between the Commission, Parliament and Council has been reached for the first EU-wide voluntary framework for the certification of high-quality carbon removals.⁵³ The Law has yet to be published in the EU's Official Gazette. As it is a Regulation, it will enter into force across all EU countries simultaneously.

The agreement sets out certification rules for:

- Carbon farming, such as restoring forests and soils and avoiding soil emissions, rewetting of peatlands, more efficient use of fertilizers, and other innovative farming practices;

⁵² https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-law_en

⁵³ https://ec.europa.eu/commission/presscorner/detail/en/ip_24_885

- Industrial carbon removals, such as bioenergy with carbon capture and storage, or direct air carbon capture and storage;
- Binding carbon in long-lasting products and materials, such as wood-based construction materials or biochar.

A few points on this legislation:

1. It is a voluntary scheme so is not to be confused with the legally binding certification of carbon credits/trading under the Emission Trading Scheme.
2. It will take years to implement, as an EU carbon removal registry will not be in place at least until 2028.
3. It will however provide opportunities for the rural community to establish new business models. Some of these need to be explored within the Brilian project; previous research projects, such as The Life Carbon Farming project⁵⁴ and the North Sea Interreg Carbon Farming project⁵⁵ have already experimented models.

Therefore, Brilian stakeholders should look at the economic possibilities carbon removal will open over the medium to long term in the EU (5-10 years).

g) Green Claims

Another landmark piece of legislation approved by the European Parliament regards the use of claims on products sold into the EU. The legislation attempts to frame what is and what is not acceptable as a “green” claims in order to avoid greenwashing. The legislation is currently being finalised before publication in the EU Official Gazette.

The rules will require companies to “substantiate the voluntary green claims they make in business-to-consumer commercial practices, by complying with a number of requirements regarding their assessment (e.g. taking a life-cycle perspective).”⁵⁶

This is particularly important for Brilian stakeholders putting products onto the markets, especially consumer facing products. Whilst the rules will have little impact upon those selling raw materials (eg starch), they will impact those companies transforming into

⁵⁴ <https://www.st1.com/st1-life>

⁵⁵ <https://northsearegion.eu/carbon-farming/>

⁵⁶ [https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2023\)753958](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2023)753958)

products (eg bioplastics). Therefore, a full reading of the law is suggested to biobased stakeholders once it is published.

h) Urban Wastewater Treatment Directive- relation to the rural economy

The updating of the 1991 Directive on wastewater (eg sewage) treatment was long overdue and a proposal was launched after lengthy consultation in 2022. Whilst 90% of wastewater is treated effectively in line with the 1991 Directive, still 10 million Europeans have no wastewater treatment, especially in rural areas.

Two elements of the new Directive interest rural stakeholders, notably:

- pre-authorisation of all urban wastewater discharges, including discharges from the food-processing industry and industrial discharges into urban wastewater collection systems. The Directive therefore applies to all those industries in rural areas that have liquid waste entering wastewater treatment (eg dairy processing, breweries, fruit juice processing).
- controls of sewage sludge disposal and reuse and treated wastewater reuse whenever it is appropriate.

The first changes the regulatory framework under which the food industry discharges waste liquids into the wastewater treatment system whilst the second changes the controls over the use of sewage sludges, eg spreading to soil. This potentially impacts farmers using sewage sludge as a soil amendment and requires more reporting and monitoring of application to land.

Interestingly, the law will also set up an Extended Producer Responsibility payment obligation for manufacturers of cosmetics and medicines that need to be treated in sewage plants, compelling them to pay for the extra costs. The law was agreed in principle at the end of February 2024 and the transcription in the Official Gazette is pending.⁵⁷

⁵⁷ <https://www.consilium.europa.eu/en/press/press-releases/2024/01/29/urban-wastewater-council-and-parliament-reach-a-deal-on-new-rules-for-more-efficient-treatment-and-monitoring/>

6. OPEN CONSULTATIONS

Finally, we look at any open consultations which may impact the rural bioeconomy. At present there are two consultations of relevance:

The first is a consultation on the impact of the Nitrate Directive, which closed on 8th March 2024. EBB contributed to this through a position paper issued by the European Environment Bureau asking for the Directive not to be revised. The fear many NGOs have is that a revision will lead to increasing levels of nitrates loaded to farmland, whereas the ecological burden requires a reduction of nitrate loads.

On April 22nd the Commission posted a draft revision of the Nitrate Directive which is now open for consultation here [Nitrates – updated rules on the use of certain fertilising materials from livestock manure \(RENURE\) \(europa.eu\)](#).

The new proposal from the Commission is made with what appears and is claimed by NGOs to be without an impact assessment. Essentially it increases the amount of nitrogen which can be applied to soil provided this derives from non-synthetic sources, eg from animal manures. This is of benefit to those farmers using animal manures to produce biogas for example, whilst at the same time provoking the risk of even greater Nitrate overloads to already vulnerable agricultural regions.

The second is of interest to polymer producers and relates to the open consultation (closed on 5th April) which aims at introducing biodegradability criteria for polymers (coating agents, water retention agents, mulch films and other polymer-based technical additives) in EU fertilising products.⁵⁸ This is particularly of interest to Brilian partners looking at new market opportunities for biodegradable polymers. A policy proposal on this has yet to be issued by the Commission.

On a completely different note, it is important to mention here that the European Commission has initiated formal infringement procedures against all 27 member states for failing to meet legally mandated waste collection and recycling targets. The widespread shortcomings were highlighted [here](#).⁵⁹

⁵⁸ https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13898-EU-fertilising-products-biodegradability-criteria-for-polymers-and-other-technical-amendments_en

⁵⁹ https://ec.europa.eu/commission/presscorner/detail/en/inf_24_3228

Some key findings include:

- 18 of the 27 EU countries missed a 2020 deadline, as outlined in the EU's Waste Framework Directive, to prepare at least 50 percent of their municipal waste for reuse or recycling, including materials such as paper, plastic, metal, and glass.
- Countries were required to recycle at least 55 percent of all packaging distributed and discarded within the European market by 2008. Specific minimum levels were set for different materials, including 60 percent for packaging made of glass, paper, and cardboard, and 22.5 percent for **plastic packaging**. The Commission reported that many of these targets were not met.
- Consequently, the Commission urged member states to increase **public awareness and education campaigns** about the importance of recycling and reducing plastic waste.
- The Commission has addressed non-compliance with **water quality regulations**, including the Urban Waste Water Treatment Directive and the Drinking Water Directive.
- Several member states have been found lacking in their implementation of the Energy Efficiency Directive, which aims to improve energy use across the EU.
- Infringement procedures have been launched against countries not meeting their renewable energy targets as stipulated by the Renewable Energy Directive.
- The Commission has taken steps to ensure that member states comply with single market rules, including those related to services and public procurement.

As a conclusion the Commission stated that Member States should boost their implementation efforts in order to meet the above-mentioned obligations. This is in line with the policy declaration of the President-elect von der Leyen to promote implementation of policies.

In terms of **next steps**, Member States have now two months to respond to the Commission's formal notice.

7. CONCLUSIONS

The European policy landscape is evolving very quickly, especially in light of the June 2024 elections for the Parliament. This has led to a raft of policies being adopted prior to the closure of Parliamentary works at the end of April 2024.

Within this landscape there is much of interest to rural communities and to the partners of the BRILIAN project, but it can be seen that as yet the policy frameworks contain contradictions and often a lack of final enacting instruments. It is uncertain at the time of writing the implications of the revised Nitrate limits under the partial revision of that Directive; how countries will enact those parts of the PPWR which allow national flexibility; and how all this matches the Common Agricultural Policy and the mooted ambitions of a new Bioeconomy Strategy. Meanwhile a sorely needed level playing field for biomass use (energy V materials) is not even discussed.

The reports from Mario Draghi and the Strategic Dialogue on EU Agriculture highlights the structural issues the EU faces in affronting competitiveness, decision making processes, mobilising capital, and forging strong innovative industries. These issues are transversal and impact the rural bioeconomy too.

The Policy Bulletin aims to highlight the sectors of interest and in the next editions will review development and underscore those policies which impact rural communities. Annex 1 contains a summary of the policies for which there are gaps and the recommendations to close them.

ANNEX I SUMMARY OF POLICY RECOMMENDATIONS

The following table summarizes the gaps, proposed solutions, and policy recommendations in the context of EU Bioeconomy policies identified until the date of submission of the present policy bulletin. The table will be updated together with the next versions of the report, and will help to contribute to the KPIs & Impact questionnaire prepared every beginning of the year for the CBE-JU.

Name of Regulation/ Directive/ Strategy	Problems/ Gaps identified	Proposed solution	EC Public Consultations or other way of transferring the problem to policy makers followed (add dates)	Any positive or negative evolution in addressing the problem since reported to policy makers?
Green Deal	The Green Deal has faced significant backlash, particularly from farmers and some member states, due to the perceived burden of ecological regulations. The complexity of its policies can be overwhelming for rural stakeholders.	Simplify the communication and implementation of the Green Deal's policies, ensuring that rural stakeholders have clear guidance and support mechanisms.	Ongoing consultations and policy discussions since 2019.	Mixed outcomes; while some policies have been adapted to address concerns, the overall complexity remains challenging.
Common Agricultural Policy (CAP)	The CAP imposes significant ecological and management burdens on farmers, which can be difficult to meet without sufficient support. There is also criticism of the lack of perceived benefits despite substantial financial support.	As mentioned above, the report on the Strategic Review of Future of EU Agriculture delivered on September 4 th 2024 to the President of the Commission by an independent panel involving associations, industry and	Review issued 4 th September 2024 addresses many of the issues signalled.	Many changes are recommended to the CAP by the review. Several of those 14 (6) are relevant to the bioeconomy.

Name of Regulation/ Directive/ Strategy	Problems/ Gaps identified	Proposed solution	EC Public Consultations or other way of transferring the problem to policy makers followed (add dates)	Any positive or negative evolution in addressing the problem since reported to policy makers?
		NGOs made 14 recommendations to change the CAP when it comes for renegotiation before implementation in 2027.		
EU Climate Goals	The ambitious climate goals place considerable pressure on the rural economy to reduce emissions, which may be difficult to achieve without new technologies or practices.	Invest in research and development of new agricultural practices and technologies that can help meet these emission reduction targets.	The re-elected President von der Leyen confirms her commitment to climate goals however with a focus on ensuring Europe is also competitive with other economic regions, eg China and USA.	The review of EU agriculture mentioned here indicates pathways to address farmers' concerns over meeting climate targets while being economically viable.
Biotech and Biomanufacturing Roadmap	There is a lack of market pull and slow regulatory processes that hinder the upscaling and commercialization of biotech innovations. The current	Streamline the regulatory framework, work towards an EU Biotech Act, and create a Biotech Hub to simplify	Not open: Roadmap announced on March 20 th , 2024, following consultations with	The roadmap provides a pathway for development, but the impact will be long-term

Name of Regulation/ Directive/ Strategy	Problems/ Gaps identified	Proposed solution	EC Public Consultations or other way of transferring the problem to policy makers followed (add dates)	Any positive or negative evolution in addressing the problem since reported to policy makers?
	framework does not provide immediate incentives for investors.	commercialization processes and overcome market barriers.	stakeholders including BIC and 16 other organizations.	and the immediate effects on market dynamics are limited.
Bioeconomy Strategy	The 2018 Bioeconomy Strategy is outdated and lacks a comprehensive regulatory policy approach that effectively supports biobased materials and products. There is a clear absence of targets and incentives for biobased product development.	Implement an updated Bioeconomy Strategy with clear targets for biobased products, harmonize regulations, and support research and development to stimulate market opportunities.	The revision of the strategy is planned for 2025, with opportunities for stakeholders, including BRILIAN partners, to provide input.	Pending; the revision process is ongoing, with a potential for stronger support mechanisms in the new strategy.
Packaging and Packaging Waste Regulation (PPWR)	There is opposition to compostable materials from some member states and associations, which limits the use of these materials in packaging. The regulation needs harmonization to facilitate co-collection and composting of certain types of packaging.	Allow member states to co-collect compostable packaging with food waste and establish harmonized standards for home composting	Publication of the regulation in April 2024 now awaits its official adoption in the EU Law Registry pending translations and legal checks.	The final text allows the use of compostable packaging under certain conditions, maintaining a market for these materials.

Name of Regulation/ Directive/ Strategy	Problems/ Gaps identified	Proposed solution	EC Public Consultations or other way of transferring the problem to policy makers followed (add dates)	Any positive or negative evolution in addressing the problem since reported to policy makers?
Waste Framework Directive (WFD)	The directive lacks targets for food waste collection and does not clarify end-of-waste criteria for food waste, creating uncertainty for bioeconomy industries.	Establish clear targets for food waste collection and provide clarity on end-of-waste criteria.	Ongoing discussions and consultations with stakeholders in 2024.	No significant changes; the lack of collection targets remains a concern.
Renewable Energy Directive II (REDII)	The directive prioritizes biomass for energy over material uses, leading to a potential imbalance and competition for biomass feedstocks.	Develop a strategy to balance the use of biomass for energy and materials, ensuring sustainability criteria for biomass use.	Discussions on the directive's revision and impact assessments were conducted in late 2023.	Ongoing, with some positive steps towards recognizing the need for a balanced approach.
Soil Monitoring Law	There is resistance from member states regarding EU-level soil health monitoring, as they see soil and land as a national and not European issue and are hesitant to put into place monitoring of soil health and use.	Implement a robust monitoring framework for soil health across the EU and promote sustainable soil management practices.	Not open: The Soil Monitoring Directive was proposed in July 2023.	Mixed reactions; some progress in setting up monitoring frameworks, but resistance remains.

Name of Regulation/ Directive/ Strategy	Problems/ Gaps identified	Proposed solution	EC Public Consultations or other way of transferring the problem to policy makers followed (add dates)	Any positive or negative evolution in addressing the problem since reported to policy makers?
Nature Restoration Law	The law faces challenges in implementation, particularly regarding the restoration of peatlands and agricultural areas.	Develop detailed Nature Restoration Plans for member states, including financial support for landowners and managers implementing restoration measures.	The Law was voted in June 2024; now the process relates to its ongoing implementation .	Positive steps with the adoption of the law, but challenges in execution remain.
Carbon Farming	The voluntary nature of the carbon farming certification framework may limit its impact, and full implementation is years away	Encourage early adoption of carbon farming practices and explore new business models that could be supported by the framework.	Agreement reached in February 2024, with full implementation expected by 2028.	The framework is still in its early stages, with potential for long-term positive impact.
Nitrate Directive	Concerns from NGOs and other stakeholders that the revision of the Nitrate Directive might lead to increased nitrogen loads on farmland, exacerbating environmental issues.	Maintain strict nitrogen limits and ensure that any revisions are based on robust impact assessments to prevent ecological harm.	Consultation on the Nitrate Directive closed on March 8th, 2024. A draft revision was posted by the European Commission on April 22nd, 2024.	The draft revision proposes increasing nitrogen limits from non-synthetic sources, which could be beneficial for farmers but may increase environmental risks.

Name of Regulation/ Directive/ Strategy	Problems/ Gaps identified	Proposed solution	EC Public Consultations or other way of transferring the problem to policy makers followed (add dates)	Any positive or negative evolution in addressing the problem since reported to policy makers?
Amending Regulation (EU) 2019/1009 as regards biodegradability criteria for coating agents and water retention polymers	The lack of clear biodegradability criteria for polymers in fertilizing products creates uncertainty for producers and could hinder the development of biodegradable polymer markets.	Establish clear biodegradability criteria for polymers used in fertilizing products to ensure environmental safety and market growth for biodegradable materials.	Consultation closed on April 5th, 2024. A policy proposal is still pending from the European Commission. Expected in 2025.	Pending; the outcome of the consultation and subsequent policy proposal will determine the future regulatory framework.

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