The role of the Bioeconomy and the CAP in prevention and valorisation of waste from the agri-food sector

Galin GENTCHEV, Policy Officer
DG Agriculture and Rural Development
Unit D.4 Environment, climate change, forestry and Bioeconomy

Energy & Climate Change and Bioeconomy WG, ERRIN
Brussels, 19th November 2019
Content of the presentation

• **Strategic context in which the Bioeconomy operates;**

• **Link with the CAP post-2020 proposal and opportunities to support the Bioeconomy in the future CAP Strategic Plans;**

• **Typology of business models/projects to be promoted through the future CAP, Horizon Europe and EU BES AP on waste prevention/valorisation and bioenergy;**
Bioeconomy sector in the EU:
(2 trillion euro turnover, Employs more than 18M people)

Turnover in the EU-28 by the Bioeconomy sector
In percentage of value (2015)

- Agriculture
- Forestry
- Fisheries & aquaculture
- Food, beverage & tobacco industry
- Bio-based textiles
- Manufacturing of wood & wood furniture
- Manufacturing of paper & paper products
- Bio-based chemicals, pharmaceuticals & plastics
- Biofuels
- Bio-based electricity

Based on DataM – Bioeconomics, database elaborated by the EC, JRC IPTS & Nova Institut
• “A Better Life in Rural Areas”

• Convinced:

• "of the value of rural resources capable of delivering sustainable solutions to current and future societal challenges that concern all citizens of the Union such as assuring a safe and sustainable provision of quality food, developing the circular economy, broadening the bio-economy, fostering resource efficiency, combating climate change and reducing the reliance on fossil fuels"
Importance of the Bioeconomy for the CAP post-2020 recognised by policy makers:

- Commission Communication "The Future of Food and Farming"

- Commission for CAP post-2020 proposals - the BIOECONOMY is in one of the 9 specific objectives, namely "Promote employment, growth, social inclusion and local development in rural areas, including bio-economy and sustainable forestry"
Revised Action plan of the EU BES: towards a Sustainable, Circular Bioeconomy

- Strengthen and scale-up the bio-based sectors, unlock investments and markets;
- Deploy rapidly local Bioeconomies across Europe;
- Understand the ecological boundaries of the bioeconomy.
Impact of the revised Renewable Energy Directive (RED II)

Improved framework for deploying renewable energy/bioenergy:

- Improved sustainability criteria to ensure sustainable mobilisation of the biomass;
- Delegated Act that excludes biofuels from feedstocks being at risk of causing a high indirect land-use change (ILUC);
- Improved potential for biomass use through improved definitions (i.e. Intermediary/catch crops are not feed/food crops)
Opportunities to support the Bioeconomy under CAP post-2020

• **Bioeconomy in the New CAP objectives** -
  - Need to link future CAP Strategic plans and National Bioeconomy Strategies;
  - VCS for industrial crops important for the Bioeconomy.

• **New CAP delivery model**:
  - More flexibility and discretion for MSs to design and implement interventions in the New CAP Strategic Plans (opportunity for stakeholders to influence their content);
  - The role of the Commission to disseminate **best practices** to support the preparation of MSs- facilitate capacity building.
**Key drivers for deploying the BE and successfully integrating primary producers (I)**

- Create a dynamic enabling governance framework, integrating the sectoral (vertical integration) and territorial dimension (national/regional) of the Bioeconomy- BE Clusters, BE Manifesto, etc.

- Promote business models at small, medium and large scale that most effectively integrate the primary producers.
Key drivers for deploying the BE and successfully integrating primary producers (II)

- Increase awareness among primary producers about existing opportunities for sustainable, inclusive and circular Bioeconomy production.

- The central role of cooperation models of primary producers: enablers in creating economies of scale and acting as facilitators/advisors to individual primary producers about best options for integrating into the Bioeconomy value chains.
Key drivers for deploying the BE and successfully integrating primary producers (III)

- A National BE Strategy (NBES) as a comprehensive and coherent framework for a cross-sectoral, strategic approach for developing the Bioeconomy (importance of regional BES);

- Link between future CAP Strategic plans and the NBES.
Special focus on small/medium scale business models

More efficient production close to the biomass location (e.g. no losses of biomass; little or no transportation);
Income diversification and higher added value for primary producers;

Produced by-products can still be further transformed in small or big-scale bio refineries;

Production of valuable protein feed as a by-product;

Nutrients recycling as a way to valorise waste through the production of biological fertilisers
Production of bioenergy on-farm, contributing to energy transition;
Opportunities for supporting the Bioeconomy in the CAP post-2020 proposals

- Interventions in rural development remaining relevant for the Bioeconomy:
  - Investments;
  - Cooperation;
  - Exchange of knowledge and information;
  - New businesses and young farmers.
Opportunities for supporting the Bioeconomy in the CAP Strategic Plans

Based on the SWOT analysis:

- Assess the biomass potential using all available data/information;

- Identify strengths, needs and respective opportunities for supporting Bioeconomy types of interventions.
Opportunities for supporting the Bioeconomy in the CAP Strategic Plans

Intervention logic in the CAP Strategic plans:

- Identify priorities, taking into account global National Bioeconomy support framework (NBES);
- Cover important cross-cutting aspects (i.e. raising awareness and mobilising stakeholders at all levels, promoting BE governance structures).
Opportunities for supporting the Bioeconomy in the CAP Strategic Plans

Intervention logic in the CAP Strategic plans:

- Role of cooperatives/ cooperation structures of primary producer in mainstreaming the BE and integrating them into the BE value chains.

- Promote circular and sustainable BE solutions;

- Identify an adequate mix of funding options under CAP, other ESIFs, including FIs;
Opportunities for supporting R&I in the Bioeconomy in the CAP post-2020 context

Next Multiannual Financial Framework (MFF) 2021-2027 proposal - the budgetary amounts foreseen for research and innovation in food, agriculture, rural development and bio-economy within the new R&I Framework Programme "Horizon Europe" - roughly doubles (10 billion EUR).
The role of the Bioeconomy in waste management (I)

- Avoiding food waste and food losses with the support of the Bioeconomy:
  - Full valorisation of biomass through sustainable circular business models in primary production (edible and non-edible biomass);
  - Innovative packaging;
  - Resources efficiency in integrated food chains (methodology for measuring food waste);
  - Activities on reforming food value chains under the revised action plan of the EU BES.
The role of the Bioeconomy in waste management (II)

• Valorisation of unavoidable food waste through nutrients recycling:
  ❖ IEP AGRI focus group on Nutrients recycling-analysis and recommendations from its final report will be integrated into the research agenda of Horizon Europe.
  ❖ Stakeholders support for “improved circularity, circular agriculture, circular food system, circular bioeconomy (umbrella organisations; researchers; individuals); zero food losses and waste (reduce, reuse and recycle)”;
  ❖ The role of bioenergy/ biogas production combined with nutrients recycling in a win-win scenario;
The role of the Bioeconomy in waste management (II)

Some key recommendations of IEP AGRI focus group:

- Demonstrate how tailor-made biobased fertilisers match plant requirements;
- Development/adaptation of cooperation business models to improve the production and marketing of tailor-made fertilisers;
- Exchange of information between farms on the use of biobased fertilisers, including nutrient and carbon behaviour in the soil.
- Involvement of as many farmers as possible is considered key.
Typology of BE projects

- Small scale business cases – individual projects;

- Medium and large scale business cases – supporting private BE infrastructure;

- Integrated projects: private and public stakeholders.
Placing bioenergy/biogas production in circular and sustainable farming business models...

...means creating further economic, environmental and climate benefits.
Economic benefits of integrating biogas production in circular farming models:

- Costs savings due to fuels savings, and reduced chemical fertilizers use replaced by the by-product of the biogas production (the digestate);
- Improve farmer resilience and income as a result of the diversification;
- Further opportunities for farmers to create new value chains (i.e. producing algae by using other by-products from the biogas production)
Environmental benefits of integrating biogas production in circular farming models

- Avoiding the “food versus fuel dilemma” - incentivising the use of biomass for biogas production, which does not take away additional land and qualifies in some cases as "advanced" biogas.
Other environmental/climate benefits of integrating biogas production

- Adaptation of some of the agricultural practices favourable for the soil health and fertility (lower soil compaction and soil erosion); for example:
  - winter cropping;
  - no tillage/strip tillage; etc.

- The production of gas from manure:
  - Displaces fossil energy;
  - Prevents GHG emissions from manure;
  - Provides nutrients for the crops by replacing mineral fertilisers, improving the LT fertility of the land.
Further opportunities for development of biogas production

- As part of circular models of green bio-refineries based on grass;

- Biogas production expanding beyond individual farms (role of cooperation).
Opportunities for the biogas production in the CAP post-2020 proposals

The proposal for the new CAP also foresees in the first pillar:

- an Eco-Scheme (i.e. remunerate farmers for producing/ using biological fertilisers);

- an option of limited "Coupled Income Support" for non-food products, which have the potential to replace fossil material in the bio-economy.
Thank you for your attention!