

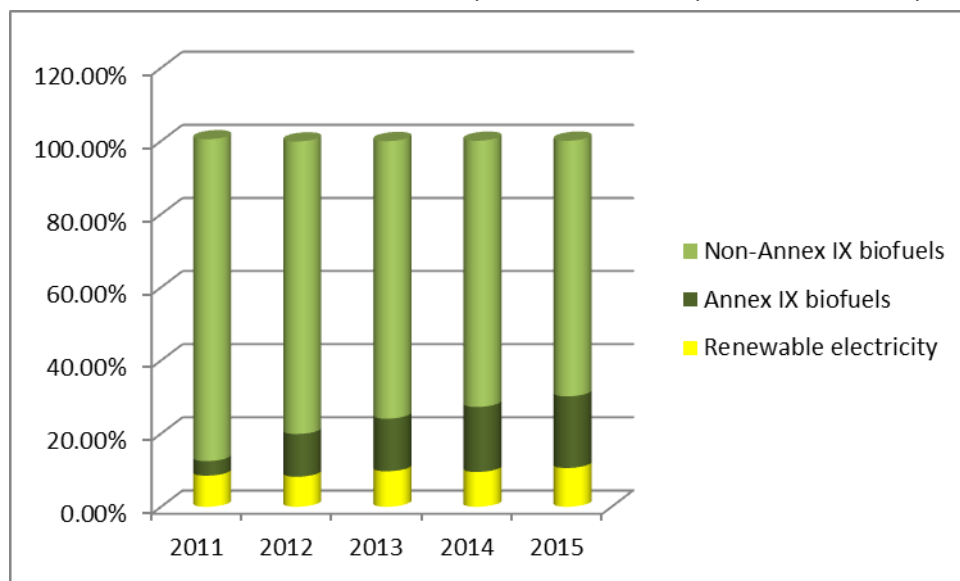


# 2016 legislative proposal for the recast of the Renewable Energy Directive for advanced biofuels

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# Biofuel consumption in the EU in 2015 (ktoe)

	2011	2012	2013	2014	2015
<b>Renewable electricity</b>	<b>1,283.8</b>	<b>1,303.0</b>	<b>1,435.9</b>	<b>1,505.6</b>	<b>1,705.0</b>
<b>All biofuels</b>	<b>13,788.7</b>	<b>14,533.8</b>	<b>13,309.9</b>	<b>14,410.4</b>	<b>14,336.1</b>
<b>Annex IX biofuels</b>	<b>603.2</b>	<b>1,855.1</b>	<b>2,124.5</b>	<b>2,826.0</b>	<b>3,136.3</b>
<b>Compliant biofuels</b>	<b>8,477.1</b>	<b>11,635.1</b>	<b>11,970.1</b>	<b>13,147.3</b>	<b>13,239.3</b>
<b>Non-compliant biofuels</b>	<b>5,311.7</b>	<b>2,898.7</b>	<b>1,339.8</b>	<b>1,263.1</b>	<b>1,096.8</b>
<b>Non-Annex IX biofuels</b>	<b>13,185.5</b>	<b>12,678.7</b>	<b>11,185.4</b>	<b>11,584.4</b>	<b>11,199.8</b>

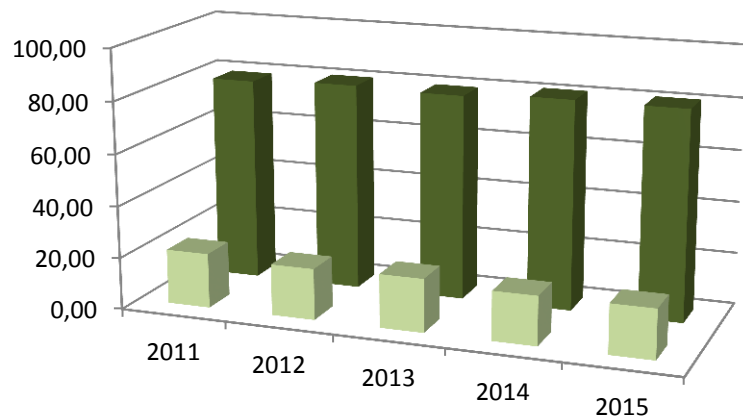


	2011	2012	2013	2014	2015
<b>Renewable electricity</b>	<b>8.5%</b>	<b>8.2%</b>	<b>9.7%</b>	<b>9.5%</b>	<b>10.6%</b>
<b>Annex IX biofuels</b>	<b>4.0%</b>	<b>11.7%</b>	<b>14.4%</b>	<b>17.8%</b>	<b>19.6%</b>
<b>Non-Annex IX biofuels</b>	<b>87.5%</b>	<b>80.1%</b>	<b>75.9%</b>	<b>72.8%</b>	<b>69.8%</b>

Source: Eurostat - Shares 2015

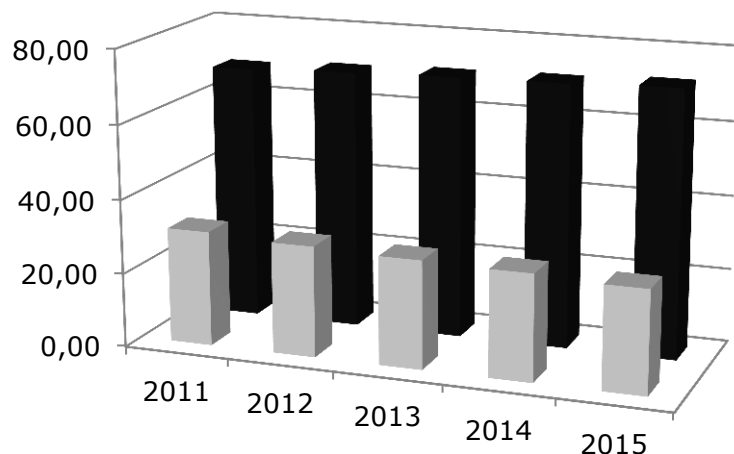
# Biofuel consumption in the EU in 2015 (ktoe)

## Ratio: Biogasoline and Biodiesel



2011	2012	2013	2014	2015
21% : 79%	20% : 80%	21% : 79%	19% : 81%	19% : 81%

## Ratio: Motor gasoline and Gas/ Diesel oil



2011	2012	2013	2014	2015
31% : 69%	30% : 70%	29% : 71%	29% : 71%	28% : 72%

Source: Eurostat – Energy Statistics

## Strategy on low emission mobility (July 2016) on biofuels

*The Commission already indicated that food-based biofuels have a limited role in decarbonising the transport sector and should not receive public support after 2020.*

*In the context of the ongoing analytical work to support the revision of the current legislation on fuels and renewable energy, the Commission is focusing on their gradual phase out and replacement by more advanced biofuels*

## Objectives of the Renewable Energy Directive (2009 and 2016)

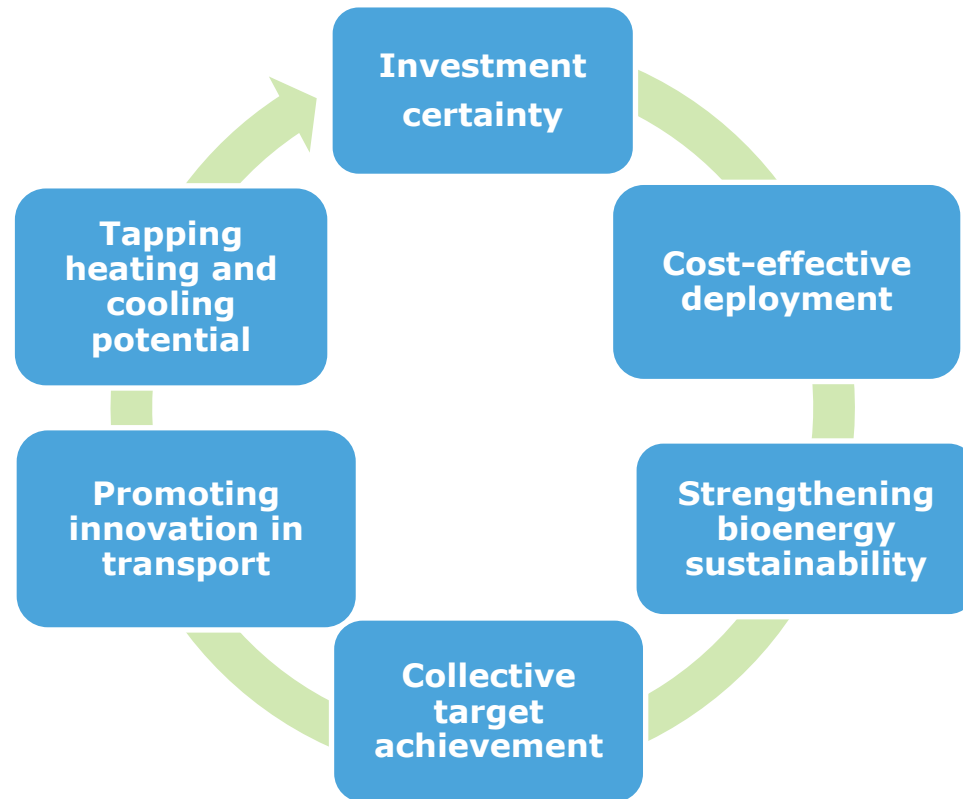
*Greenhouse gas emission reduction and compliance with the 2015 Paris Agreement on Climate Change;*

*Compliance with the EU energy and climate framework;*

*Promotion of:*

- Security of energy supply,*
- Technological development and innovation*
- Opportunities for employment and regional development, especially in rural and isolated areas or regions with low population density.*

# The revised Renewable Energy Directive Post-2020 – key objectives of proposed measures



## Definitions in the Commission`s legislative proposal of 30 November 2016

**Biofuels** - liquid fuel for transport produced from biomass

**Biomass fuels** - gaseous and solid fuels produced from biomass

**Biogas** - gaseous fuels produced from biomass

**Food and feed crops** - starch-rich crops, sugars and oil crops produced on agricultural land as a main crop excluding residues, waste or ligno-cellulosic material

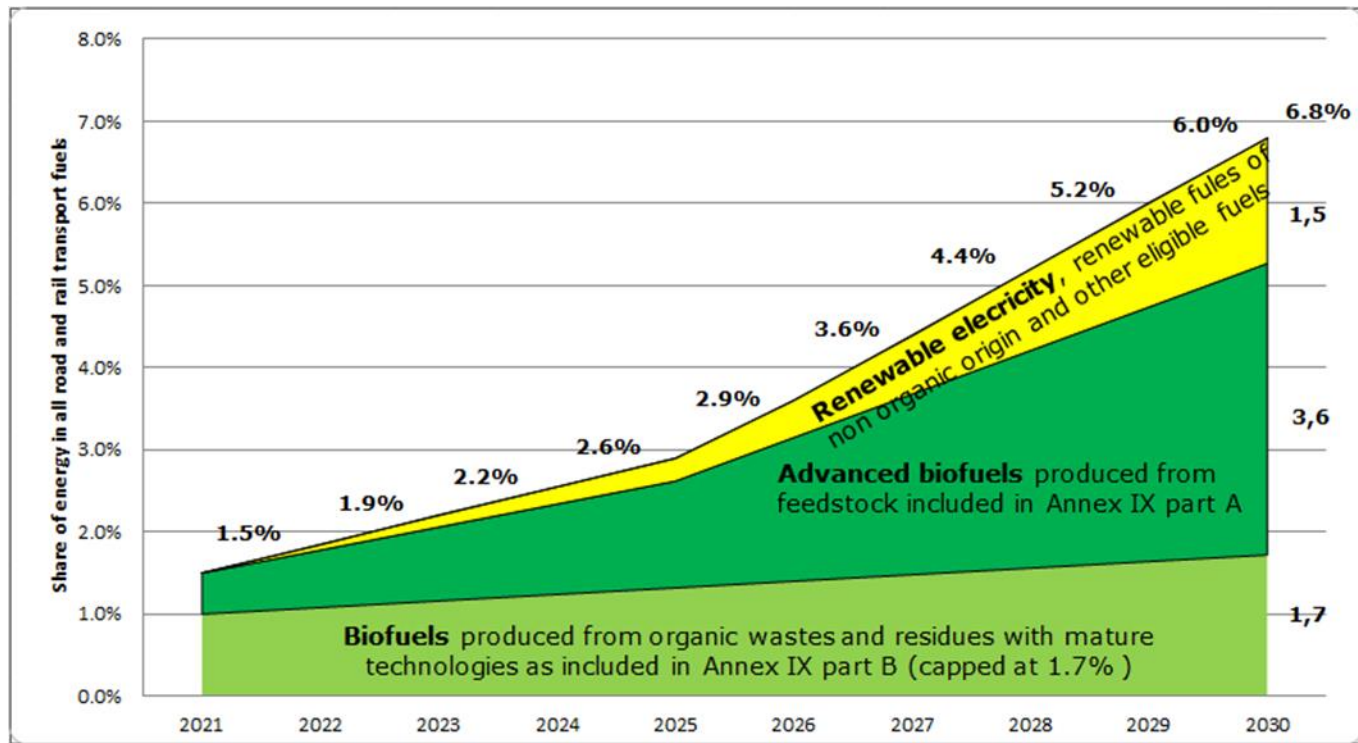
**Advanced biofuels** - biofuels that are produced from feedstocks listed in part A of Annex IX

**Waste-based fossil fuels** - liquid and gaseous fuels produced from waste streams of non-renewable origin, including waste processing gases and exhaust gases

**Fuel supplier** - the entity supplying fuel to the market responsible for passing fuel or energy through an excise duty point or, where no excise is due, any other relevant entity designated by a Member State

**Biowaste** - biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises, and comparable waste from the food processing industry

# Commission's proposal for transport specific measures in the Renewable Energy Directive (after 2020)



Increasing the share of low carbon and renewable fuels in transport through an EU incorporation obligation



## Difference between RES-T target and proposed obligation

- *RES-T target requires Member States to achieve a share of 10% renewable energy in the transport sector*
- *Proposal for RED II would require Member States to implement and enforce the incorporation obligation.*
- *Differences in scope:*
  - **Not covered: food and feed crop-based biofuels**
  - **Covered: low carbon fuels produced from fossil waste streams.**

## Incorporation obligation in more detail (I)

### Scope:

- Advanced biofuels (produced from feedstock listed in Annex IX part A)
- Biofuels and biomethane produced from feedstock listed in Annex IX part B
- Renewable fuels of non-biological origin
- Fuels produced from fossil waste
- Not covered: conventional biofuels produced from food and feed crops

### Obligated party: Fuel suppliers

*Ambition level: increases from 1.5% of transport energy demand (road and rail) in 2020 to 6.8% by 2030*

### Key design features:

- Supplies to all transport modes eligible (except electricity in rail)
- Ring-fencing of advanced biofuels (at least 3.6% by 2030)
- 1.7% cap on biofuels produced from Annex IX part B feedstock
- 20% bonus for fuels consumed in maritime and aviation sectors

*Biofuels must achieve 70% GHG emission savings*



## Incorporation obligation in more detail (II)

### Tradability:

- Obligation can be transferred amongst fuel suppliers.

### Fraud prevention:

- Member States required to create a database that traces the eligible fuels
- National databases must be linked

### Rules to determine the RES share:

- Co-processing
- Renewable electricity
- Renewable fuels of non-organic origin

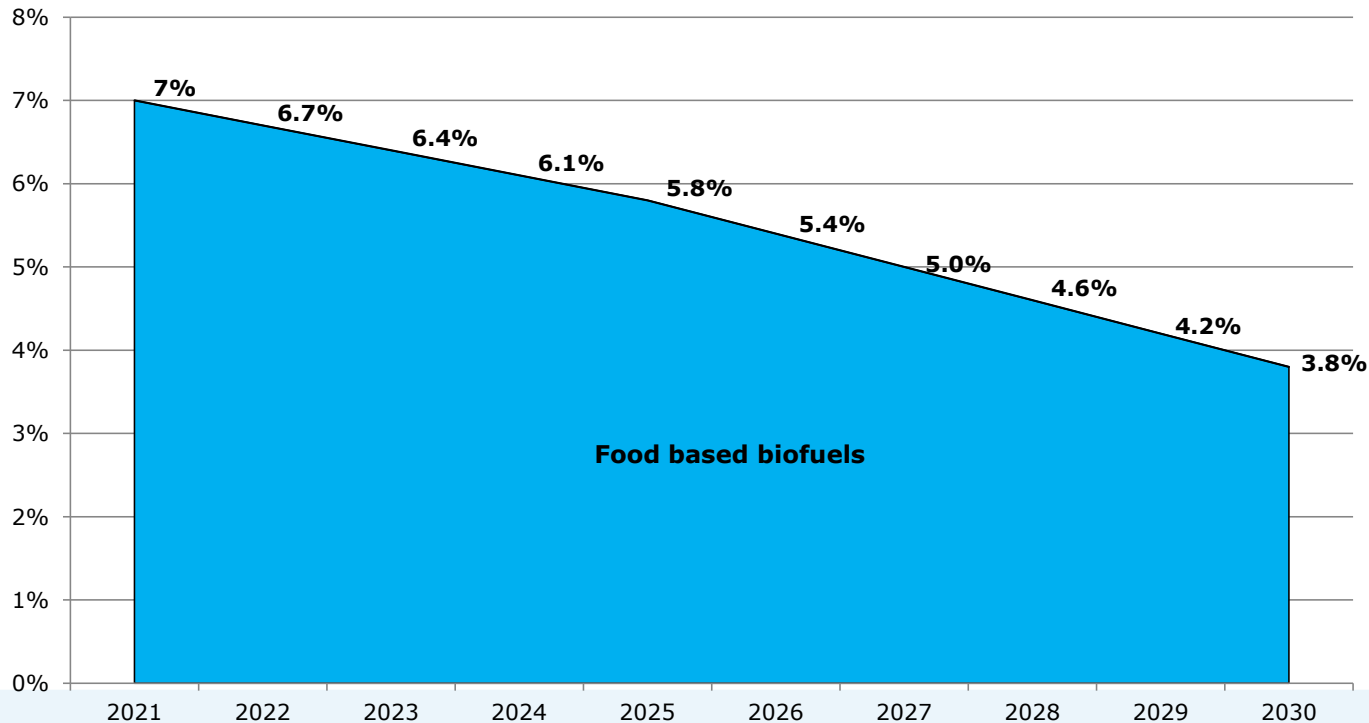
### Review and delegated acts:

- 2025 Assessment of effectiveness on the obligation
- 2021 Assessment of possibility to add feedstocks to Annex IX
- GHG methodology and saving requirement for fuels produced from fossil waste streams
- Technical details co-processing and databases

## Advantages of energy based obligations

- *Both energy based as well as a GHG reduction obligation are able to promote deployment of low carbon fuels such as advanced biofuels*
- *Energy based obligations*
  - *are easily implementable, verifiable and ensure high GHG savings with ambitious emission saving thresholds*
  - *minimize the administrative burden for economic operators*
  - *build on the extensive policy and administrative experience developed by Member States implementing the RES Directive*

## Gradual phase out of conventional crop based biofuels



- Gradual phase out of crop-based biofuels from 7% in 2020 to 3.8% in 2030, effectively bringing the conventional biofuel use to pre-2008 levels.
- Member States may set a lower limit and may distinguish between different types of biofuels for instance by setting a lower limit for the contribution from food or feed crop based biofuels produced from oil crops, taking into account indirect land use change.

## Improved sustainability

***Proposal strengthens the EU sustainability criteria, but separates them by source (agriculture biomass, forest biomass) regardless of end use***

### Biomass production

agriculture biomass - improved sustainability criteria



forest biomass - New sustainability scheme (i.e. risk-based approach)



### Biomass end-use performance

**GHG saving requirements:**

**Biofuels/bioliquids:** 70%

**Biomass & biogas** for heat and power: 80%

Support to new biomass electricity only if with  
**combined heat and power technology**  
(exception for security of supply)





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