Ethanol Europe

# RED II revision consultation

Feedback from Ethanol Europe

## Summary

RED I and II have been ineffective in decarbonising transport

- Oil is winning
- Transport related GHG emissions are rising
- RED II (transport) is expected to achieve less than 10% renewables by 2030 in real terms

A revised RED II for the European Green Deal will need to reflect three principles:

I. Oil needs to be replaced, demand growth halted and reversed
II. Renewables fraud needs to be prevented
III. Potential in ethanol needs to be tapped

Policy recommendations for a revised RED II:

1. To keep oil in the ground, the Green Deal and RED II must be framed by the objective of replacing transport oil consumption, include an "unambitious" 1% per year binding oil reduction requirement as a simple facilitative measure.
2. To reduce the incentive for fraud, abandon double counting towards the 14% target of imported Annex IX-B feedstocks. Even better if all multiple-counting of biofuel feedstocks are abandoned.
3. To avoid policy ambiguity, ensure that the 1.7% cap on Annex IX-B feedstocks is applied each year from 2021.
4. To reap the manifold benefits of ethanol, abolish the 'crop cap' (volume used in 2020 +1%) on domestic conventional ethanol.
5. Any biofuel coming from a country with net deforestation should not be considered sustainable. Likewise, link certification of low-ILUC risk feedstocks to the condition of reaching zero net deforestation in the country of origin.

## RED II and effectiveness

Current EU transport decarbonisation policies are ineffective. RED II, Europe's core policy for delivering transport decarbonisation, is toothless and unlikely to deliver. It is supposed to bring results in replacing fossil fuel use in road transport by 2030, yet it is clear already in 2020 that it will fail and that transport oil demand and GHG emissions will continue to rise.

- The headline 14% target for transport to be met by renewable energy in EU by 2030 is rendered ineffective, because of i) multiple-counting certain contributions towards the target, such as Annex IX feedstocks and EVs, ii) arbitrary caps on proven and scalable pathways, iii) large scale fraud and iv) inadequate incentives to stimulate investments. RED II has maintained the market uncertainty prevalent since the adoption of RED I, resulting in deferral or abandonment of investment in alternative fuel pathways. Under RED II the renewable energy portion of road transport energy is expected to be lower in 2030 than today, while overall transport demand will have risen.
- RED II depends on advanced biofuels for achieving its goals, yet there is no sign that the necessary investments will materialise. The 3.5% target to be met in 2030 by using advanced biofuels look likely to be missed by a wide margin, and the 100+ investments in additional production capacity are nowhere in sight.
- Electrification of transport is the other core measure that RED II aims to foster, yet even the EU's own projection (Fig 49) shows that EVs' share in 2030 will be a mere 9% - a share which is starkly insufficient to curtail oil consumption to a degree deemed consistent with the 2 degrees pathway.
- The volume of Used Cooking Oil (UCO) has been increasing sharply (imports from Asia rose by 55% in the first half of 2020), and in some MS already surpassing the 1.7% cap, yet evidence is mounting that a large part of it is not genuine waste collected in Europe, but more likely palm oil falsely labeled. Nevertheless, all UCO is double-counted as climate progress in EU.
- Conventional biofuels are capped at 7%, and worse, the 'crop cap' (volume used in 2020 +1%) will preclude even reaching the 7% cap. There is no basis for this cap - there has been no ILUC or deforestation resulting from Europe sourced ethanol and there will not be under any real scenario.
- Conventional ethanol is not incentivised at EU level, and there are no new plants under construction. Investment in the sector is stalled, forgoing the potential extra benefits the technology may bring.

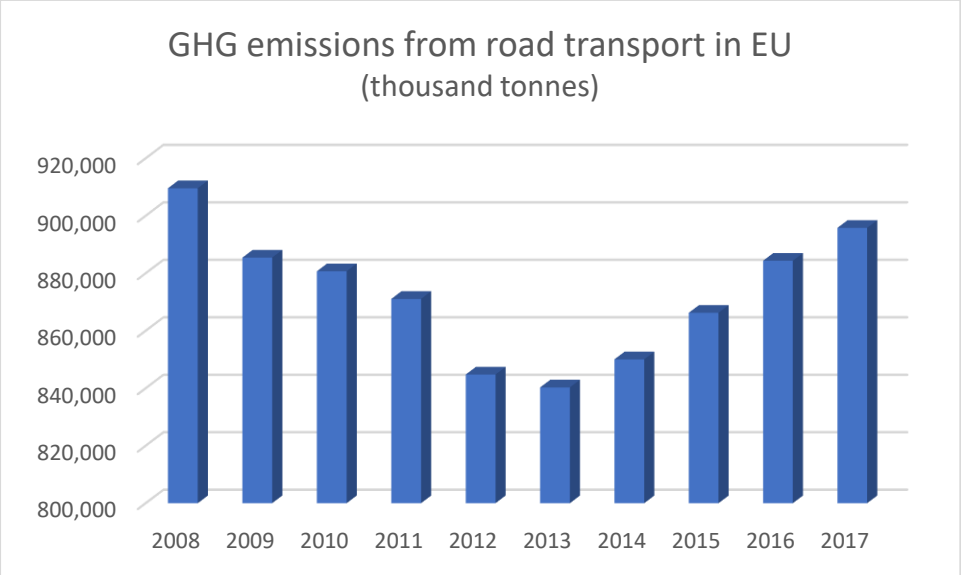
## Failure of EU regulation

In the past two decades, a key priority of EU climate policies has been decarbonisation of transport. A range of regulations have been adopted to curb transport related GHG emissions. The Renewable Energy Directives aimed to foster renewables in transport energy, the Fuel Quality Directive aimed to reduce carbon intensity of road fuels, the Energy Taxation Directive was supposed to eliminate environmentally harmful subsidies in transport energy, regulation was adopted to set increased emission standards of vehicles, and the Alternative Fuels Infrastructure Directive was to improve infrastructure; all this aimed to improve the climate profile of the transportation sector.

Today it is clear that none of the relevant EU regulations have been effective for transport while related GHG emissions are on the rise. Transport is the only sector in the EU where emissions

are not decreasing. In fact, GHG emissions from road transport in the EU have been on the rise since 2013. There is nothing in RED II that will reverse the trend in the period to 2030.

It has become clear by now that EU transport policy has failed to deliver transport decarbonization. GHG emissions from both road transport and cars alone are higher in 2017 than in 2000, as shown on the charts below.




Source: Eurostat

## Elements of a revised policy direction

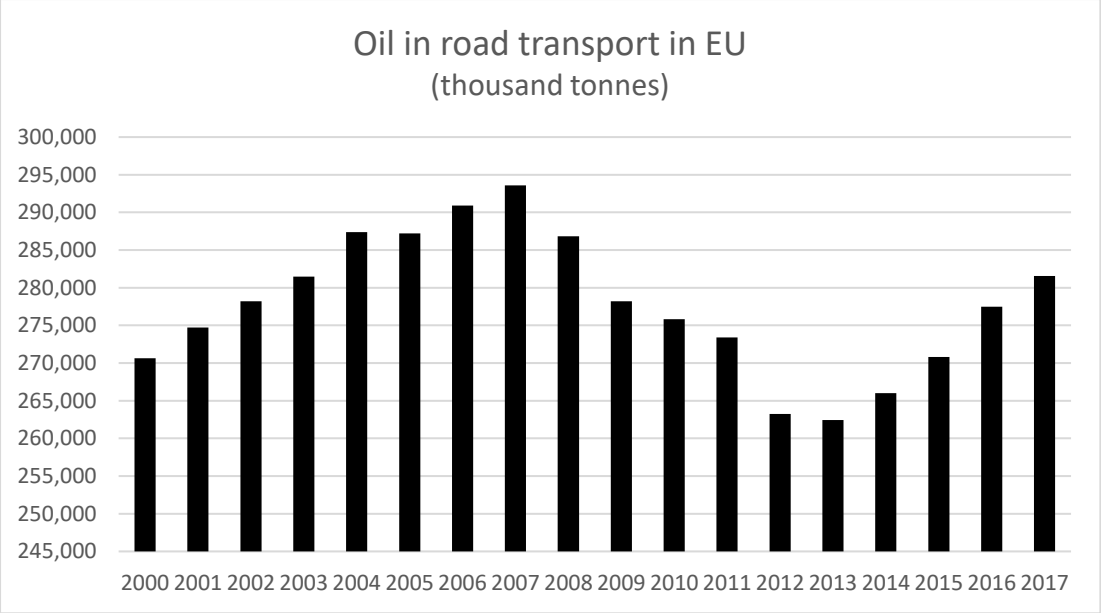
A revised RED II will need to reflect three basic principles as follows:

I. Oil needs to be replaced and growth halted and reversed
II. Biofuels fraud needs to be prevented
III. Potential in ethanol needs to be tapped

### I. A reality check on oil is needed

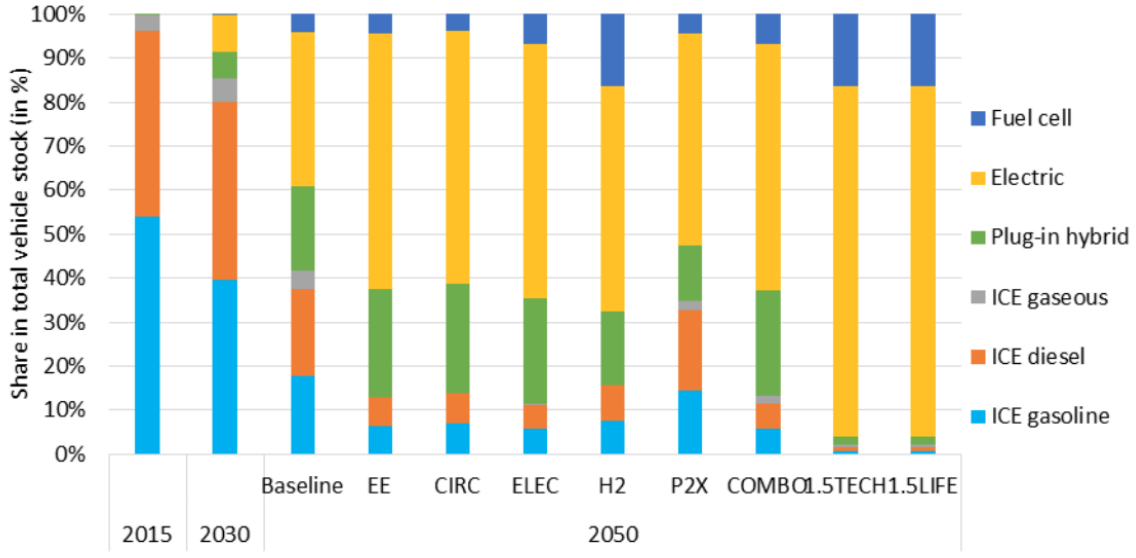
Oil consumption in road transport has barely been impacted by EU transport policy to date (chart below). EU transport energy regulation has proven ineffective because regulations have failed to tackle the root cause of the problem, which is the continuing growth in oil consumption. Indirect approaches have been applied but no direct measures have been adopted. All relevant regulations, including RED I and RED II, FQD, ETD, emission standards for cars and AFID have been indirect and small. RED II and any mix of policy measures going forward must be designed with a direct focus on halting oil growth immediately and reversing the trend.

Until fossil fuel consumption, the single most important driver of climate change, is curbed, there is no hope to stay below 2 degrees, let alone 1.5. Similarly, until oil consumption in road transport is curtailed, there is no hope whatsoever that transport will do its fair share in contributing to climate change mitigation.
The European Green Deal must address this, by replacing or reforming RED II.




Oil is projected to maintain its dominant position as transport fuel in EU in 2030 and beyond. EU background documents (in-depth analysis made in 2018 for the 2050 long term strategy) forecast that the EV share in 2030 is expected to be around 9%. Together with hybrids they shown to have a share less than 15% in 2030. The share for electric light duty vans is even lower. In all major EU vehicle markets the number of diesel and petrol vehicles on the roads is rising at a rate which far surpasses EV fleet growth.

**Figure 49: Shares in total cars stock by drivetrain technology in the Baseline and scenarios reaching -80% to net zero emissions by 2050**




Despite the European Commission's proclaimed aim of decarbonising transport, Europe's transport sector will remain heavily dependent on oil until 2030. A staff working document accompanying the European Strategy for Low-Emission Mobility, reads as follows:
"*Oil products would still represent 86-87% of the EU transport sector needs – compared to 94% today*". In a decade of 1-3% annual transport growth renewables would need to rise by

more than 20% by 2030 to halt the rise in oil demand. RED II should establish a 22% renewables target for 2030, in real terms (not multiple-counted).

It needs to be noted that "ambition" that focuses on scenarios for 2050 while ignoring what happens this year, next year and in the next five years, is compounding the problem by enabling the continued growth of oil consumption (growing the problem) and the failure to deploy solutions which are effective today, such as conventional ethanol biofuel.

## 1. Policy recommendation

A reality check is needed. We need to learn from the past decade of failure. Modest indirect regulations have not delivered. It is high time to expressly focus on halting oil consumption in road transport immediately.

Metrics can be fudged when applying a mix of complex and diverse policy measures, and the big picture objective can be lost in the detail. On the other hand, a simple oil consumption reduction statistic cannot be manipulated. A straightforward metric is needed: oil consumption in transport each year between 2020 and 2030.
Germany has recently decided to phase out coal in electricity production by 2038 as it realized that coal and climate change mitigation do not fit together, hence the EU, in a similar fashion, should recognize that maintaining current oil consumption rates and transport decarbonization cannot co-exist.

Greenwashing primacy over substantive change will be exposed if policymakers back a simple reality check—that each Member State reduce transport sector use of oil by 1% per year, each year from 2020 levels.

This is not a climate policy "target" and should not be confused as such. In the Green Deal negotiations, a number of proposals will promise greater cuts, and so this proposed requirement should be non-controversial. But such a requirement is radical. It will scare oil because it is meaningfully (i) immediate and (ii) unambiguous. Just what EU climate & transport policy is not currently.

Decarbonizing road transport without reducing oil consumption is hopeless. Oil is cheap; markets find ways to keep using the cheapest forms of energy.

**Solution**: back an "unambitious" 1% per year binding oil reduction requirement as a simple facilitative measure compatible with any climate target- a climate reality check that if breached shows that climate progress in transport is still not taking place.

## II. Fraud prevention

Policies based on rewarding things made from "wastes" or "residues"— vague terms that can be gamed in the real world— set up a competition in which government regulators need to be better than clever traders seeking ambiguities, loopholes or, simply, lucrative opportunities to deceive.
Clever traders have often outwitted regulation. The most salient case is Used Cooking Oil (UCO). About one third of used cooking oil in Europe is fraudulent. The UK and the Netherlands have recently launched official investigations. The issue is not new, as early as in

2014, the European Commission warned of the real risk of fraud, stating that '*it is relatively easy to artificially modify vegetable oil to make it indistinguishable from genuine UCO*'.

UCO is the only large volume non "food or feed" biofuel feedstock in the EU. UCO is often not what it appears to be, and if not of European origin, palm oil is often masquerading as UCO through international adulteration. It is in the interest of the climate and the European biofuel industry to shed light on the dark side of UCO and its processed form UCOME.

Due to inadequate policing of fraud, palm oil labelled "used cooking oil" or "residue" floods EU biofuels markets and the market has created a bewildering array of terms for biofuels feedstocks—most of which are imported through murky supply chains from less than credible places. To aggravate the situation, the European Commission in 2020 circulated a list of dozens of additional categories of feedstocks that it is considering (Annex IX list) potentially creating more opportunities for imported fraud.

The European Court of Auditors in its 2016 report on the EU System for the Certification of Sustainable Biofuels expressed serious concerns about fraud saying:

- *the EU certification system for the sustainability of biofuels is not fully reliable because of weaknesses in the Commission's recognition procedure and subsequent supervision of voluntary schemes*
- *biodiesel produced from UCO 'is often traded at a higher price than biodiesel from vegetable oil'. This entailed a risk of virgin oil being adulterated to be sold as UCO. This risk was noted in a recent study*[1] *which echoed concerns from operators and other stakeholders concerning 'the risk of fraud if virgin vegetable oil would be sold as UCO'.*
- *Considering the inadequacy of the checks to verify the origin of biomass consisting of waste or residues, it cannot be excluded that data on double counted biofuels might include quantities of biodiesel certified as produced from UCO, whilst, in reality, the feedstock may have been from virgin oil or fraudulently denatured virgin oil.*

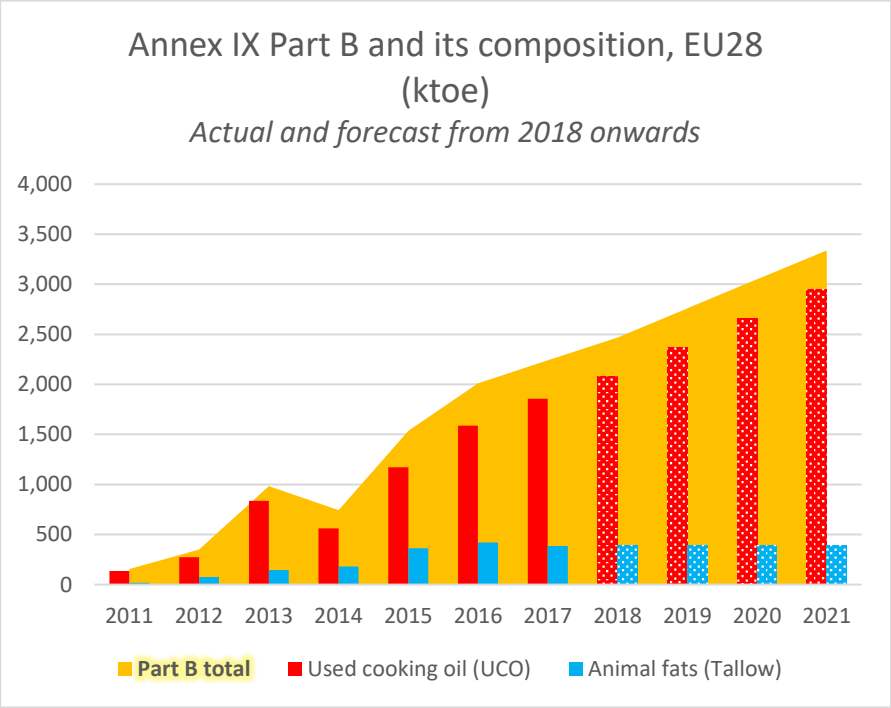
## UCO and GHG emissions:

- Domestic UCO, a genuine waste collected in Europe is highly effective, coming with low ILUC.
- Imported UCO is considered to have a high ILUC impact, similar to soybean or palm biodiesel (in the range of 65-150 gCO2e/MJ, Ecofys, 2016).
- Fraudulent UCOME has the same ILUC as its respective source vegetable oil (palm oil in the vast majority of cases). Palm oil has a prohibitively high ILUC impact (231 gCO2e/MJ, Globiom, 2015), making it worse for the climate than fossil fuels.

## RED II and Double counting:

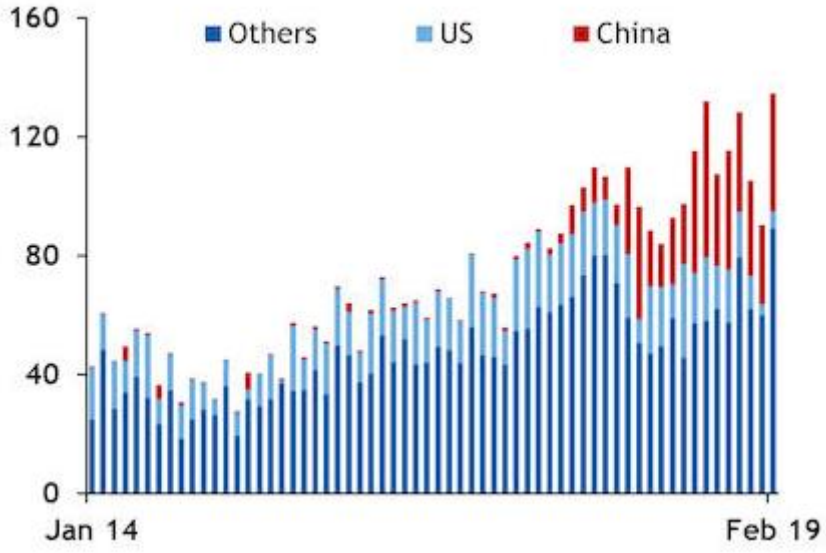
[1] Ecofys, 'Trends in the UCO market', 2013, p. 2.

- The recitals to RED II apply the Waste Hierarchy, but the text of RED II does not actually do this. As a result, Annex IX-B biofuels (mostly UCOME) are colloquially called "wasted based fuels" although there is no legal requirement that any feedstock be waste.
- UCO demand have been increasing as Member State mandates rise towards the EU target of 10% of renewables in transport by 2020, therefore UCOME use in Europe has grown rapidly in recent years, approaching 4 million tonnes per annum, or more than a third of total biodiesel.
- UCOME is double counted, so it commands a price premium. The price premium in theory should disappear if double-counting is removed.




Source: Eurostat/Shares, 2018

## UCO imports to EU per month (thousand tons):

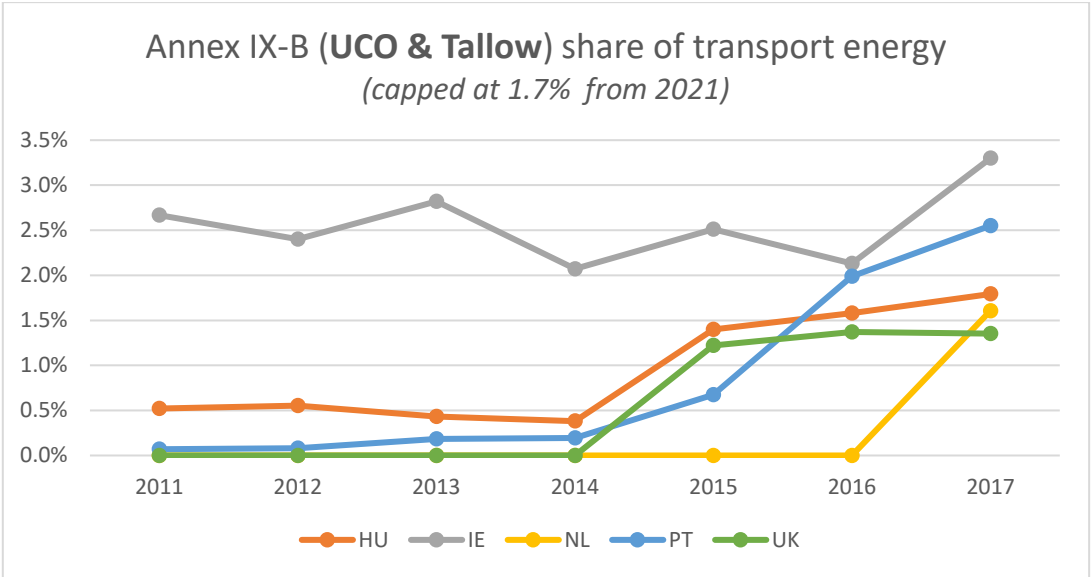



Source: Argus

## Cap on UCO:

Since domestic UCO collection rates in the EU could not have improved considerably, one must conclude that the vast majority of the growth in UCO consumption in the EU comes from imported sources. Improving UCO collection rates means extra expense. Imports of moderately priced non-waste UCO inhibit the collection of domestic waste UCO by depressing prices.
In RED II there is a cap of 1.7% for the use of Annex IX-B feedstocks (UCO and tallow). Some MSs already exceed it. Tallow (animal fats) use seems to be relatively stable in EU, so Annex IX-B is increasingly UCO (see chart above). A linear forecasting predicts that UCO consumption will represent the vast majority of Annex IX-B biofuel consumption in 2021.

The countries that have already exceeded the 1.7% cap on Annex IX-B biofuels are Ireland, Portugal, Hungary and the Netherlands. Based on 2017 data, Germany and Italy all have a reasonable chance to soon exceed the cap, if not yet so.



Source: Eurostat/Shares, 2018

### Policy recommendation

The incentive to fraud needs to be removed. The hidden link between UCO and palm oil needs to be broken.
Palm oil is cheap, in fact it is the cheapest vegetable oil on market for use in biodiesel production. It makes financial sense to use virgin palm oil instead of more expensive genuine UCO.
Due to double counting, oil companies have an incentive to blend UCOME if its premium to gasoil stands below the double of the FAME premium to gasoil. UCOME prices therefore depend directly on FAME prices.

**Solution**: Abandon double counting of imported Annex IX-B feedstocks towards the 14% target.

The spirit of regulation would require that the 1.7% cap on Annex IX-B feedstocks is applied from 2021. The text is ambiguous, and there are signs that some stakeholders may opt for relaxing the cap.

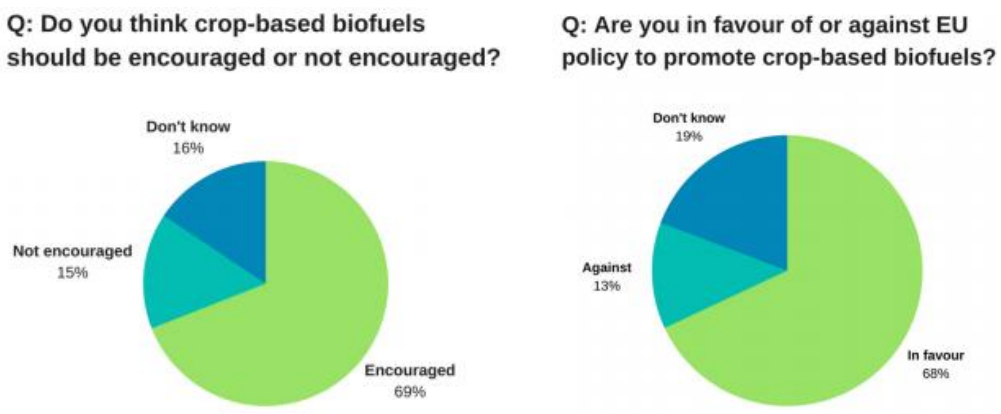
**Solution**: Make it explicit in the revised RED II that the 1.7% cap on Annex IX-B feedstocks is applied from 2021.

## III. Revisit ethanol

Sufficient time has passed to enable the evaluation of ethanol, the actual conventional ethanol on the market in contrast to future conceptual biofuels that exist solely in the minds of some stakeholders.
The ethanol story has quite a long history in Europe and is far from being controversial. Surprisingly, it is not controversy around biofuels themselves, but it is attitudes towards ethanol - the alternative fuel that has in the past decade replaced oil products in road transport the most - that needs attention. A key indicator of how bad things can go when infiltrated by ideology was the statement in 2016 of a key European Commission official '*don't confuse me with facts*' when admitting to follow "feels-right" opinions about biofuels, instead of science and data.

Three key biofuel policies have been adopted in the EU: i) Renewable Energy Directive in 2009, ii) the ILUC Directive in 2015 and iii) the RED II in 2018. Regulation has become more restrictive and increasingly detached from science. The initial enthusiasm for biofuels in the mid 2000's has been replaced by an increasingly restrictive mindset, and, as a result, effectively curtailing the contribution of biofuels to a variety of public goods, including climate change mitigation, rural development, advancement of farming or energy security.

It is noteworthy that despite the largely negative image of biofuels in some stakeholders in Brussels, the general public in the EU overwhelmingly support biofuels, including ethanol.




Source: EuroPulse, 2017

Recently, the food v fuel debate, GHG emissions and indirect land use change (ILUC) and costs are the issues that divide stakeholders' attitude. These are discussed in the following.

## 1. Food security and food prices

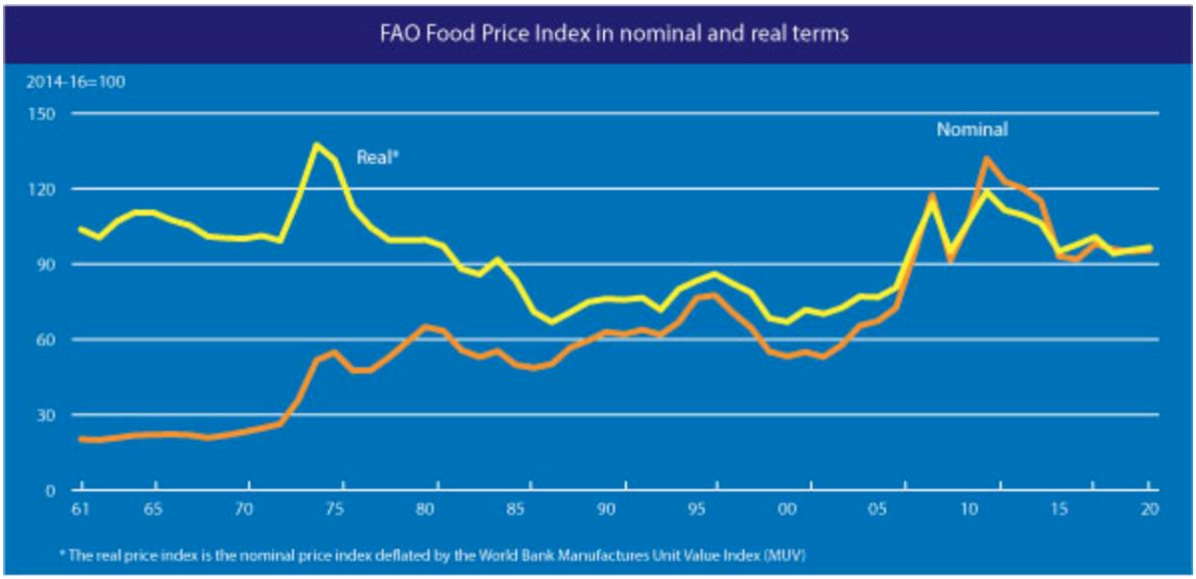
It has been claimed that biofuel production, by using excessive land would take away the space from food production and therefore the price of food would surge resulting in an ever-increasing burden on globally food insecure populations. That appeared an entirely legitimate concern. Common sense would imply that the more land is devoted to biofuel production the less land is available for food production. Luckily this scenario has never come true. The concern is proved unfounded, real world data testifies.

World inventories of coarse grains recently approached their highest in nearly 30 years. There is more than enough food produced in the world and the cause of world hunger is a failure in food distribution and wastage of food, not biofuels. Globally, 40% of food is wasted, and this is where action is needed.

The so-called **food v fuel** argument was at its height in the middle of the last decade, but its prevalence in scientific literature has now diminished. This is undoubtedly because considerable data has since accumulated to show the real impacts of biofuels on food prices, rather than the hypothetical and model projected data on which the above claims were based. It is no longer possible to rely on these assumptions in the face of the evidence now available. The price of food is most influenced by the price of oil and ethanol has had minor or zero impact on global commodity prices. Moreover, commodity cost (i.e. corn) is only a small component of final food product price.

Sufficient time has passed to assess real world data and see whether actual developments are in line with early predictions made around the temporary food price increase around 2008 with regard to the likely impacts of biofuels. Recent science concluded "*The real-world data showed no evidence of food price increases or other lands converting to agriculture because of biofuel*."

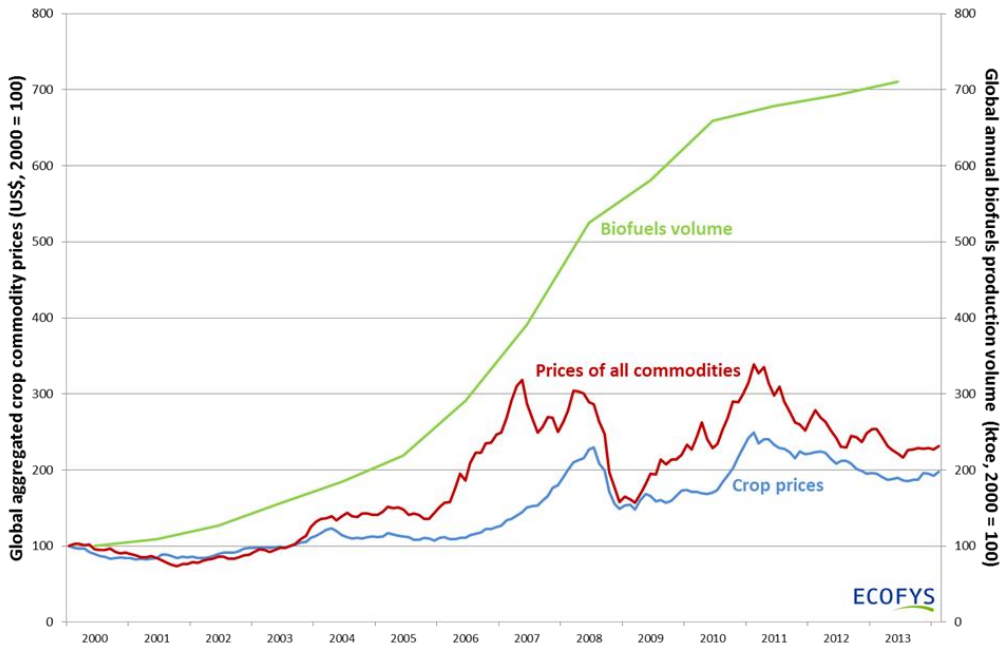
Since 2008, global ethanol output has increased by 50% globally, while, contrary to all of the predictions, food prices have fallen by about a fifth and cereal prices are down by a quarter. According to FAO data, the global price of food as measured by the Food Price Index in 2020 was as low in real terms as it was 13 years previously. The cereal price index in 2020 is as low in real terms as in the '80s and '90s.




Source: FAO

The 2017 EU progress report finds that "the EU ethanol consumption had negligible impact on cereal prices". Note that the 2019 report no longer mentions the food price topic.

**Global crop commodity prices and the aggregated price of all commodities, versus global biofuels production volume, both normalised**




What may have gone wrong with common sense concerns and expectations? In addition to the dominating impact of oil price, the answer is explained by the fact that agriculture is not a static industry but it responds to economic signals, just like any other industry does. Crucially, farming may have responded to price stimulus as a result of higher demand for crops, and the response was higher production. Productivity of farmland will have increased as there was now reason for investing in technology given the improved market prospects. Additional feedstock, was produced. If there was a shock of extra demand, farming has easily accommodated it. In

other words, farming is a dynamic industry, capable of adjusting to changing market conditions and is responsive to market signals. Crop production, again, has shown its potential and resilience.

Some references: FAO Price index, WorldBank, 2013, EC Renewable energy progress report, 2017

## 2. GHG emissions and ILUC

The climate credentials of biofuels have been questioned. Biofuels are portrayed by some lobby groups as having a prohibitively large indirect land use change (ILUC) impact. Because of high ILUC emissions some biofuels are claimed to be worse than oil.
This may be true for palm oil, but ethanol has no nexus to palm. Palm oil has always been the Achilles-heel of biofuels. For long EU biofuel policy has been informed by the fear of encroaching palm plantations, with impacts largely undifferentiated from that of domestically produced European biofuels.

The sustainability criteria for biofuels have been made stronger since RED, and the GHG saving requirement was increased from 50% to 60% and then to 70%. All biofuels on the market today easily meet the GHG saving requirement set by RED II. Furthermore, there are ethanol supplies on the market that comes with a 100% GHG saving.

European conventional biofuels provide an effective solution to reduce GHG emissions from the road transport sector – the only sector that has been unable to reduce its climate impact.
In contrast to most climate change mitigation options in the transport sector, biofuels are available at scale, inexpensive and effective, and they are suited to Europe's still growing internal combustion engine fleets. It is worthwhile to underscore the opposite directions fossil fuels and biofuels have taken in carbon intensity, with the former rising, and the latter decreasing. Furthermore, the carbon intensity gap is projected to widen further.
The 2019 EU renewable energy progress report finds that total emission savings from the use of biofuels in transport in the EU amounted to 33.2 Mtonne CO2eq in 2016 (excl. ILUC).
Ethanol displaces fossil fuel. Using ethanol keeps oil in the ground, with high and increasing GHG savings rates.

GHG savings of ethanol


Source: ePURE, 2020

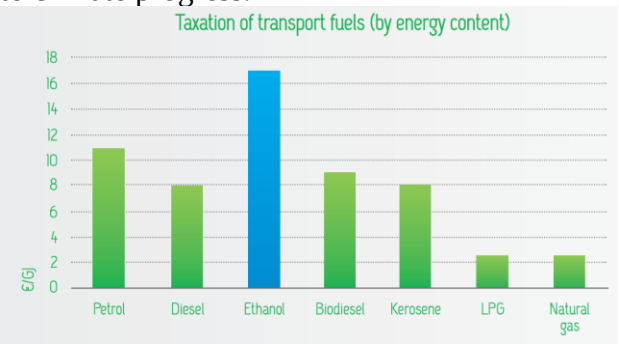
The primary response of the farm sector to increased demand has been to increase productivity of land and to produce more on the same land, rather than converting extra lands. Science investigating whether biofuel policies can contribute to yield increase shows that indeed it can, and in the end more food, feed, bio-based materials and biofuels can be produced on the same amount of land - provided we have the right policies in place. If biofuels produced are from yield increase, no ILUC materialises.
Agricultural land has been abandoned in the past decades in the EU, mainly for economic reasons. Each year in Europe 1-2% of farmed land area is taken out of farming while each year Europe increases farm output by a couple of per cent. Biofuel feedstock crops provide farmers with additional income slowing the rate of land abandonment. The problem in Europe is the high rate of land abandonment rather than excessive demand for biofuel feedstock. Informed projections put the area of abandoned land in the EU at 10 million hectares. European farming needs additional demand to make it profitable to farm existing lands and to assure continued viability of the sector.

Ethanol is shown to have very low risk of causing indirect land use changes. The current ethanol supply chain is wholly ILUC free. In total, ethanol saves substantial amounts of GHGs, even after ILUC is accounted for. There is no way that it is worse than oil. The IFPRI and the most recent Globiom report both show that the theoretical corn ethanol pathways studied emit around only half of GHG emissions of fossil fuels. Apply the same analysis to actual real world ethanol supplies and the ILUC element vanishes entirely.

To put it into context, ILUC factors for conventional ethanol (0-14g CO2e/MJ) calculated by Ecofys based on Globiom, the most comprehensive research carried out in Europe recently, should be considered low in relation to the fossil fuel comparator (94gCO2e/MJ).

## 3. Cost of transport decarbonisation

The cost of transport decarbonisation matters. There are no cheap options to decarbonise transport, and as the yellow vest movement in France recently showed governments ignore at their peril the risk in public acceptance of internalising external cost in fuel prices.
The EC has yet to published a report or analysis on the cost of transport decarbonisation. It has no reliable information what technological options are the most cost effective, and which ones to be discarded because of high carbon abatement cost.
Even the most obvious solution, adjusting fuel taxes (excise duties) to their climate impacts and hence taxing fuels on energy content or CO2 emission not volume, has not progressed since 2003. Currently, ethanol is the most heavily taxed fuel – despite the fact that contributes to climate progress.

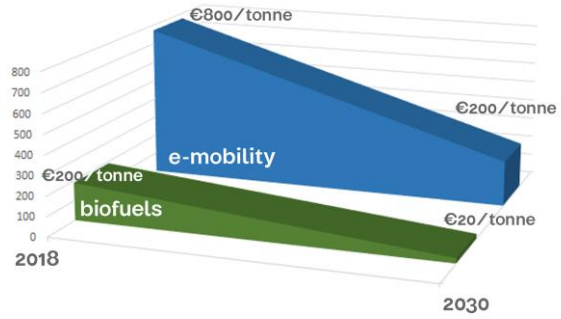



Source: ePURE based on DG Taxud, EC.

The EC approved in 2019 draft National Energy and Climate Plans, blueprints for any climate progress in MSs until 2030, despite the fact that no draft NECPs contained a carbon abatement

cost calculation or a ranking of options based on costs of the transport decarbonisation options. Final NECPs are little different.

Conventional biofuels are one of the most cost-efficient transport decarbonisation measures available at scale. Recent research shows that the carbon abatement cost of conventional ethanol and biodiesel are one of the lowest in available technological options in Central and Eastern Europe to decarbonise road transport. Earlier in 2016, Roland Berger, a renowned consultancy showed that biofuels are an inexpensive solution.




Source: Ecofys, 2019

## 4. Overarching benefits of ethanol

In addition to transport decarbonisation, ethanol brings other benefits, such as the following:

- **Rural development**: Biofuel plants are often located close to the source of their feedstocks, hence in rural settings, therefore are instrumental in revitalising rural communities.
- **Jobs**: Direct and indirect jobs have been created and maintained by the ethanol industry in Europe. These jobs are often in disadvantaged rural regions. Bioethanol use in transport is estimated to provide more than 70 thousand jobs in the EU.
- **Economic impact**: Through regional and national impacts ethanol plants throughout the EU add billions of Euros to national budgets.
- **Energy independence**: The EU relies heavily on imports to meet its oil demand in transport. European produced biofuels reduce this dependence, making the EU more energy independent.
- **Protein feed deficit**: Protein rich animal feed, co-products at biofuel plants (DDGS), substantially reduces the EU's protein deficit and replaces soya meal imports from South-America. Conventional ethanol reduce protein feed deficit in Europe. EU biofuels result in 85% of domestic protein meal, a portion which would be replaced with high-ILUC imported soy meal if conventional EU biofuels were to be cut from the energy mix.
- **Farming**: The profitability of farming is increased by an additional outlet for their produce. No surprise that farmers support European biofuels. Furthermore, investment in sustainable intensification technologies are also stimulated by the demand from biofuels.
- **Air quality**: Ethanol blend petrol emits less air pollutants than pure fossil petrol, especially particulate matters (PM), therefore contributes to lowering the human health impact of transport.
- **Fighting Covid-19:** Europe's ethanol plants recently converted some of their fuel ethanol to alcohol used in hand sanitisers to help fight the pandemic.

## 5. Policy recommendations

### *Lift the crop-based biofuels cap*

The so called 'crop cap' should be revisited. RED II prescribes that the share of conventional biofuels should be no more than one percentage point higher than their share in 2020, ie. the volume used in 2020 +1%, regardless of the underlying performance of the biofuel.

To tap the potential in conventional ethanol and reap its manifold benefits, conventional ethanol consumption should be incentivised to grow in a sustainable manner. The growth between 2020 and 2030 in the EU will inevitably be lower than in the previous decade, so any impact will necessarily be lower. Given the facts that no meaningful negative impact of European produced conventional ethanol materialised between 2010 and 2020 (see previous discussion on food prices, GHG profile and ILUC), it is safe to assume that potential negative impacts in the upcoming debate will be similarly absent. On the other hand, the potential benefits should be expected to be significant (climate progress, advancing farming, rural development, air quality, etc.). The balance will be overwhelmingly positive until 2030.

**Solution**: The 'crop cap' restriction should be abolished for domestic ethanol. European produced conventional ethanol should be allowed to grow to reach the 7% cap specified in RED II.

### *Clarify low ILUC and high ILUC feedstocks*

RED II specifies that low indirect land-use change-risk biofuels should be exempt from the 7% cap on so called food and feed crops-based biofuels. Member States can not use more biofuels from high-ILUC risk feedstocks than they use in 2019, unless that feedstock is certified as low-ILUC risk.

The relevant delegated act adopted in 2019 identified palm oil only as a high ILUC biofuel. Palm oil however can be certified as low-ILUC risk feedstock, so exempt from the phase out.

ILUC impacts can be mitigated. The two most evident ways to produce low-ILUC biofuels are by productivity gain and use of abandoned lands. If a feedstock comes from above baseline crop yield increases, previously non-applied multiple (double) cropping, or cultivation on abandoned or degraded land, ILUC impacts should be near zero, or even be negative ILUC. Deforestation is the fact that delegitimizes low-ILUC feedstock. The "land use" at issue in ILUC is, simplified, deforestation. If the country of origin of potential low-ILUC feedstock has still not achieved the goal of zero deforestation (and we note that every country in question expressly states a goal of zero deforestation), and given that low-ILUC feedstock certification is necessarily interpreted at local levels, then that fact should preclude low-ILUC certification. Once that country attains zero-deforestation, then low-ILUC certification may be permissible. Indeed, once most countries achieve zero deforestation, then ILUC will, effectively, cease to exist. Therefore, *low-ILUC feedstock and deforestation are incompatible*. This is true both at a scientific level, and at a practical level. The risk of fraud is insurmountable in the case of an ostensibly "low ILUC" palm plantation being adjacent to a "high ILUC" palm plantation.

**Solution**: No biofuel coming from a country with net deforestation can be considered sustainable.
In a similar fashion, high-ILUC risk feedstock (palm oil or soy) certified as low-ILUC risk, and thus being exempted from the cap and subsequent phase out of high-ILUC risk feedstocks in RED II, is only a viable alternative if the country of origin of such feedstock has reached a level of zero net deforestation.