

BEST project's reply on Biofuels consultation

Question 1.2

What do you think the administrative burden of an approach like the "possible way forward" would be? (If possible, please quantify your answer.)

Existing certification schemes and agriculture/forestry policies/ natural protection legislation can be used to a high degree as models to create a system with minimal administration.

Question 1.3

Please give your general comments on the "possible way forward", and on how it could be implemented. Does it give an adequate level of assurance that biofuels will be sustainably produced?

A higher total demand for land could put pressure on protective reinforcement in some countries.

In addition to the proposed certification, EU should transfer knowledge on how to introduce and reinforce protective measures. EU has a thorough experience on how to introduce measures like "Natura 2000" in new member states and should hence be able to transfer experience on this matter also outside EU, e.g. in the framework of the Convention on Biological diversity.

Question 1.5

As described in the "possible way forward", criterion 3 focusses on land uses associated with exceptional biodiversity. Should the criterion be extended to apply to land that is adjacent to land uses associated with exceptional biodiversity? If so, why? How could this land be defined?

The need for "protecting zones" and "spreading corridors" around areas of high biological diversity and how to define them is well developed within the science of natural protection. Several agreements in the Convention on Biodiversity build upon these findings.

Most industrial countries have developed a framework for such areas. However – the identification of such areas and the reinforcement of the protection varies. EU has a clear responsibility in transferring knowledge on how to succeed in these matters. A good certification scheme that identifies biofuels produced outside such areas would be a strong incentive for these countries to reinforce their natural protection.

Question 2.1:

Please give your comments on the "possible way forward" described above. If you think the problem should be tackled in a different way, please say how.

The "do nothing scenario" (how land use would have developed if biofuel use had remained constant) must include effects related to the current trend of using increasingly amounts of oil.

Question 3.1:

How should second-generation biofuels be defined? Should the definition be based on:
a) the type of raw materials from which biofuels are made (for example, "biofuel from cellulosic material")?

b) the type of technology used to produce the biofuel (for example, "biofuels produced using a production technique that is capable of handling cellulosic material")?

c) other criteria (please give details)?

Question 3.2:

Please give your comments on the "possible way forward" described above. If you think the problem should be tackled in a different way, please say how.

Question 3.3

Should second-generation biofuels only be able to benefit from these advantages if they also achieve a defined level of greenhouse gas savings?

The definition should rather be based on the efficiency in decreasing GHG.

Note that so called 2nd generation of biofuels are not necessarily more energy efficient nor CO₂-efficient than the so called 1st generation biofuels. Hence 2nd generation should **not** be treated favourable just because they are called 2nd generation. The only reason to give extra benefits to 2nd generation of biofuels would be if the GHG-savings are higher or they fulfil the criterias set in the certification scheme better. A possible way would be to regard any biofuel that reach a specified higher limit of GHG-savings as 2nd generation – which also would be a technology-neutral approach.

FT-diesel from biomass and lignocellulosic ethanol are often called 2nd generation. None of these are more efficient in reducing GHG than e.g. sugar cane ethanol from Brazil, biomethane made from waste, or wheat ethanol with co-generation of electricity and/or heat. While FT-diesel is a fuel with better driving performance than 1st generation biodiesel, there is no difference between lignocellulosic ethanol and so called 1st generation of ethanol with regards to driving properties. Ethanol – ethanol is a better fuel than petrol (E85) or diesel (E95), being a simple molecule that burns with less heat, result in more complete combustion and hence less dangerous emissions, has a higher octane (E85) number and lower cetane number (E95) and is hence more energy efficient.

The advantage the 2nd generation of biofuels have is mostly to increase the feedstock potential. Lignocellulosic ethanol is also regarded to be cheaper than starch-ethanol.

Bio-DME could reduce dangerous emissions to the same low level as biomethane, but is still not economically viable to produce. Nor is there any infrastructure or even vehicles available.

What is needed is RTD to develop cost efficient production methods of 2nd generation. EU and MS should support this RTD. These biofuels should then be able to compete with price with 1st generation.

To make this competition fair and not biased towards any special technology, subsidies for **use** of biofuels could be linked to the amount of GHG-savings for each fuel (still a rather general scheme - not to make the system too bureaucratic). This would probably benefit the

gasous fuels biomethane and DME – and make it possible for these to compete on similar conditions with liquid biofuels.

Question 4.2:

Should the legislation include measures to encourage the use of ethanol and biodiesel in high blends? If so, what?

Yes! Ethanol in high blends is a well proven technology, with the highest feedstock potential of all currently available biofuels. Energy efficiency is similar to petrol and diesel or somewhat higher, both on WTW and TTW-basis and could be raised even further with dedicated vehicles optimised for E100.

There is a need to make the driving cost equal to petrol and diesel vehicles. Currently production cost for all biofuels are higher and there is a need to even out this by subsidies (e.g. tax discounts/duty derogations). With increasing oil price + support for RoD on cost efficient production methods for producing biofuels + economy of scale these subsidies can subsequently be phased out.

The EU-projects BEST and Biogasmax will give valuable experiences in what measures are efficient to promote the use of high blend biofuels. We encourage the Commission to make use of these experiences.

With an increasing amount of different fuels and fuel qualities with widely different energy content (Diesel, B5, B10, B20?, B100, E5, E10, E20, E85, E95, E100?, petrol, biomethane, CNG, LPG, DME? etc) it is obvious that pricing and taxation per **litre** is obsolete and tends to confuse both consumers and tax authorities. This calls for standardization.

To promote high blends, also other standards are needed.

- E85 (E100) standard (Spark-plug ignition)
- E95 standard (compression ignition)
- B100 standard
- Standards for handling and operation of these fuels
- Recognition of these fuels in all relevant national legislation (custom tariffs, safety, planning etc.)
- Biomethane standard

- Possibility to certify vehicles on these fuels
- A definition of clean vehicles to be able to incentivise vehicle use
- Possibility to register these vehicles as clean vehicles (alt ethanol vehicles, biogas vehicles etc) to be able to reinforce any incentive

Question 4.3:

Should the legislation include measures to encourage the use of biomethane, methanol and DME in transport? If so, what?

These fuels will be encouraged by technology neutral measures, based on the GHG savings as proposed above. They will however need support in RTD, and possibly also for infrastructure

Question 4.6

More generally, what role should taxation play in the promotion of biofuels (considering different situations such as low blends, high blends and second-generation biofuels)?

There is a need to make the driving cost equal to petrol (or even diesel) vehicles. Currently production cost for all biofuels are higher and there is a need to even out this by subsidies (e.g. tax discounts/duty derogations). With increasing oil price + support for RoD on cost efficient production methods for producing biofuels + economy of scale these subsidies can subsequently be phased out.