## IFIEC response to EC roadmap "restoring sustainable carbon cycles"

The climate law requires Europe to reach net zero emissions by 2050, and to aim to achieve negative emissions thereafter. In order to reach these ambitious targets technologies to reduce GHG emissions as well as technologies to remove and utilise CO<sub>2</sub> will be required. Industry is currently looking into carbon capture and storage/usage technologies (CCSU). Negative emissions can be achieved thanks to combining bioenergy production with carbon capture and storage (BECCS). However, several barriers are hampering industry in the further development of CCSU.

Therefore, IFIEC welcomes the initiative of the EC to create a long-term vision for sustainable carbon cycles. IFIEC asks the EC to consider following elements:

- A robust and consistent GHG accounting is necessary Industrial GHG emissions are regulated in the Emissions Trading System (ETS). The ETS contains detailed accounting rules in the Monitoring and Reporting Regulation (MRR). The accounting rules are to a large extend following IPCC guidelines that set consistent rules to ensure all GHG emissions are accounted for once. However, the current MRR does not recognise all avoided GHG emissions in the case of CCU and even lead to possible double counting of emissions during production and in the use phase. It is important to distinguish different types of CCU products:
  - CCU products where the CO<sub>2</sub> remains chemically bound in the use phase
  - CCU-products were the CO<sub>2</sub> will be emitted during use phase

Some CCU-products will have multipurpose uses and can fall in both categories. Adaption of the MRR for these two types can be done following two CCU cases already implemented in the MRR precipitated calcium carbonate and urea while safeguarding following principles:

- The avoided CO<sub>2</sub> emissions should be recognised in the MRR for phase 4 (2021-2030) to adequately support CCU;
- All CO<sub>2</sub> emission should be accounted for consistently and only once;
- innovation support must allow further development of CCSU technologies without restricting criteria. CCU technologies are in still at low TRL stages and require further research and development. It is important at this stage that any criteria that would hamper further development are avoided. For example, in most CCU application H<sub>2</sub> will be needed. To accelerate the uptake of H2 and CCU it is important that no extra restrictions are imposed on the origin of hydrogen (similar to electrification were no criteria are imposed on the origin of electricity used in cars). This would lead to even more expensive hydrogen prices and would hamper further developments of H<sub>2</sub> and CCU.
- Policy framework based on technology neutrality and cost efficiency can fuel further development. It is important that the proposed policy framework does not favour one renewable or low carbon technology or energy carrier (e.g. targets in RED). If negative emissions are the goal in the long term, technologies utilising CO<sub>2</sub> or capturing CO<sub>2</sub> from atmosphere will be crucial.