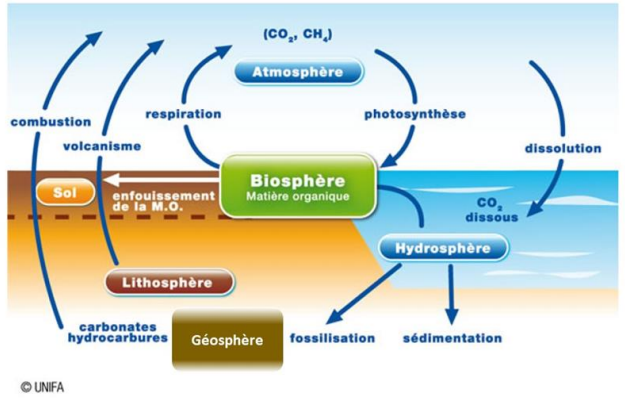
For a responsible circular approach

To carbon accounting by the fossil industries

Carbon cycling

Cycle operation

The atmosphere is at the heart of the system and ensures a very fast balance (a few days to a few months) with the biosphere and hydrosphere compartments.



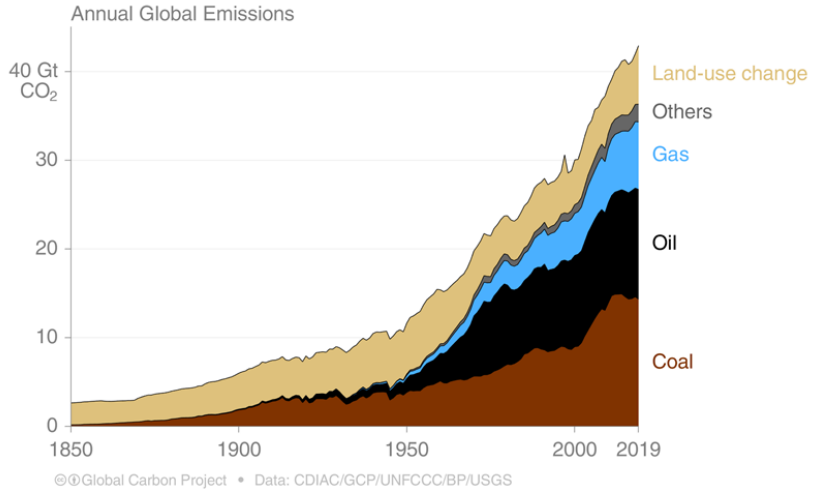
Anthropogenic emissions - Impact

Anthropogenic fossil carbon is emitted into the atmosphere at a rate more than 25 times greater than that of natural fluxes from the geosphere (volcanism, metamorphism, ...).

The atmosphere is only able to distribute about half of fossil emissions to the biosphere and hydrosphere :

-> 0.6% /year increase in the CO_2 content of the atmosphere

-> ongoing and future global warming



From current control of GHG emissions to an Upstream Carbon Indicator

Current mechanisms

- Emissions Trading System (ETS)
- Carbon tax
- Clean development mechanisms (offset programs and carbon credits)
- Carbon Border Adjustment Mechanism *(under discussion)*

Their Limits

- Limited coverage
- Erratic price signals so far
- Variety and complexity of mechanisms
- Ambiguous counting, wide ranges of estimates

Upstream Carbon Indicator

- Monitoring of the only fossil carbon mobilized by human activity
- Place and time of the measure set unambiguously:
  - Wells, mines, working quarries
  - Administrations already in place in all producing countries
  - Conversion into tons CO_2e based on chemical composition
- The only subtracted quantities are long-term volumes of carbon definitively locked by human action
- A single « scope »
- Direct comparison of actual counting with « carbon budget »

A responsible circular approach

Principle

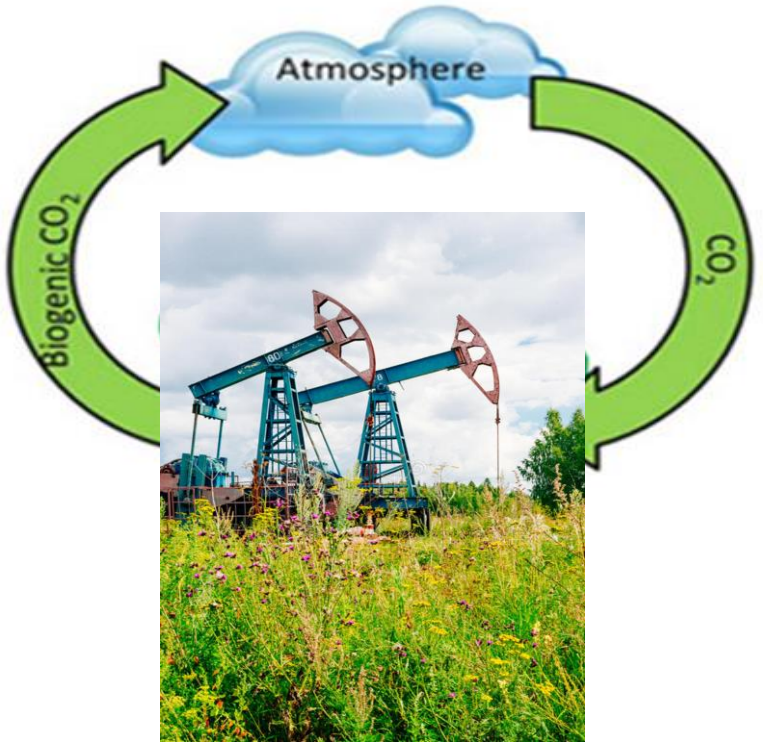
Have a supranational law resolution adopted at COP 26 aimed at making the initial producers of fossil carbon (gas, oil, coal) responsible for the life cycle of the extracted carbon.

-> Each ton of fossil carbon extracted must correspond to another ton of biospheric carbon geologically immobilized at the same time.

Countries and companies that produce fossil carbon are responsible for returning equivalent amounts of carbon extracted underground.

Failing to do so themselves :

- they entrust this to specialized providers
- or they transfer this responsibility to buyers of their products.



A responsible circular approach

Benefits

- Rapid reduction in fossil emissions
- Cost of carbon recovery and storage considered at source.
- Captive carbon market for the most efficient operators
- Bio-carbon sources not penalized
- Land management left to local initiative