

Hydrocarbons and Fuels

Classification and Definition

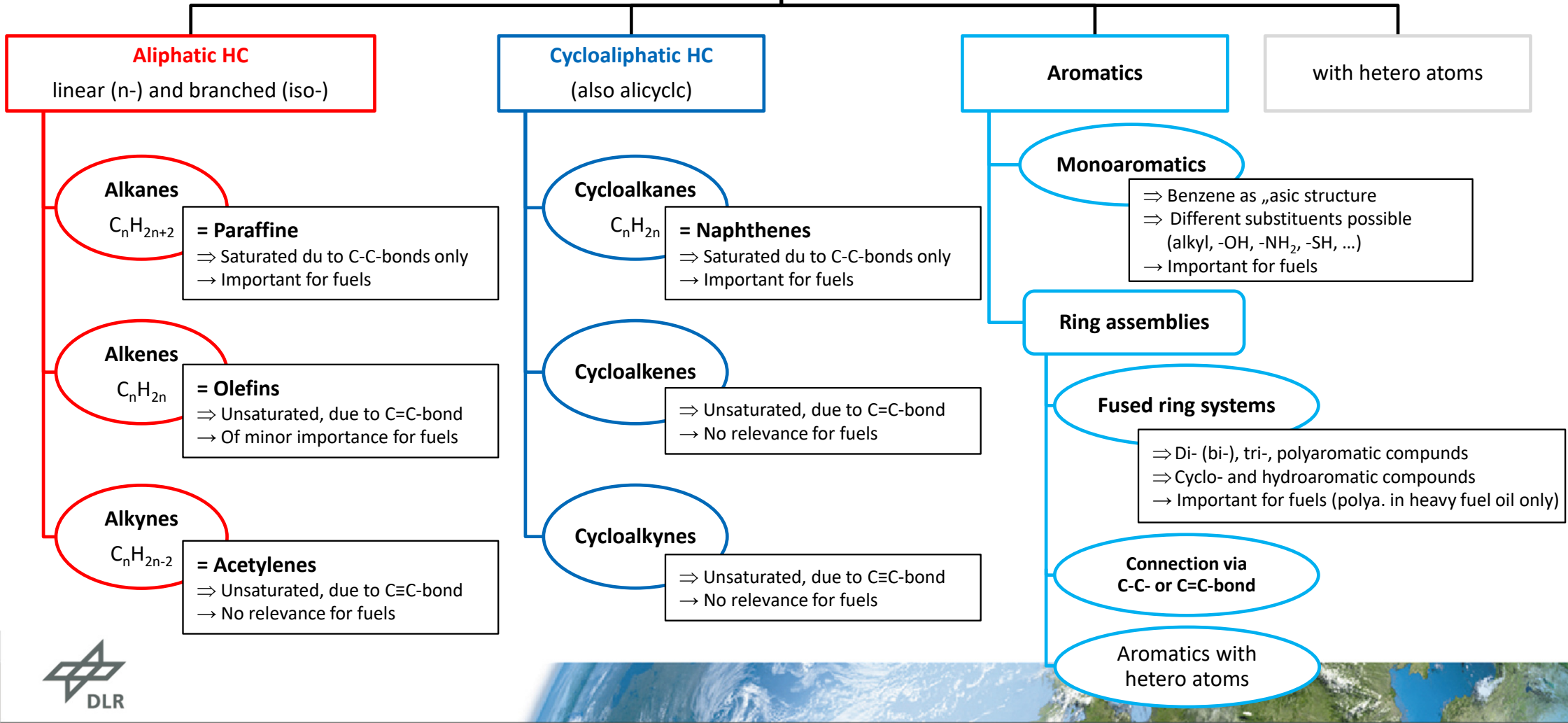


Wissen für Morgen



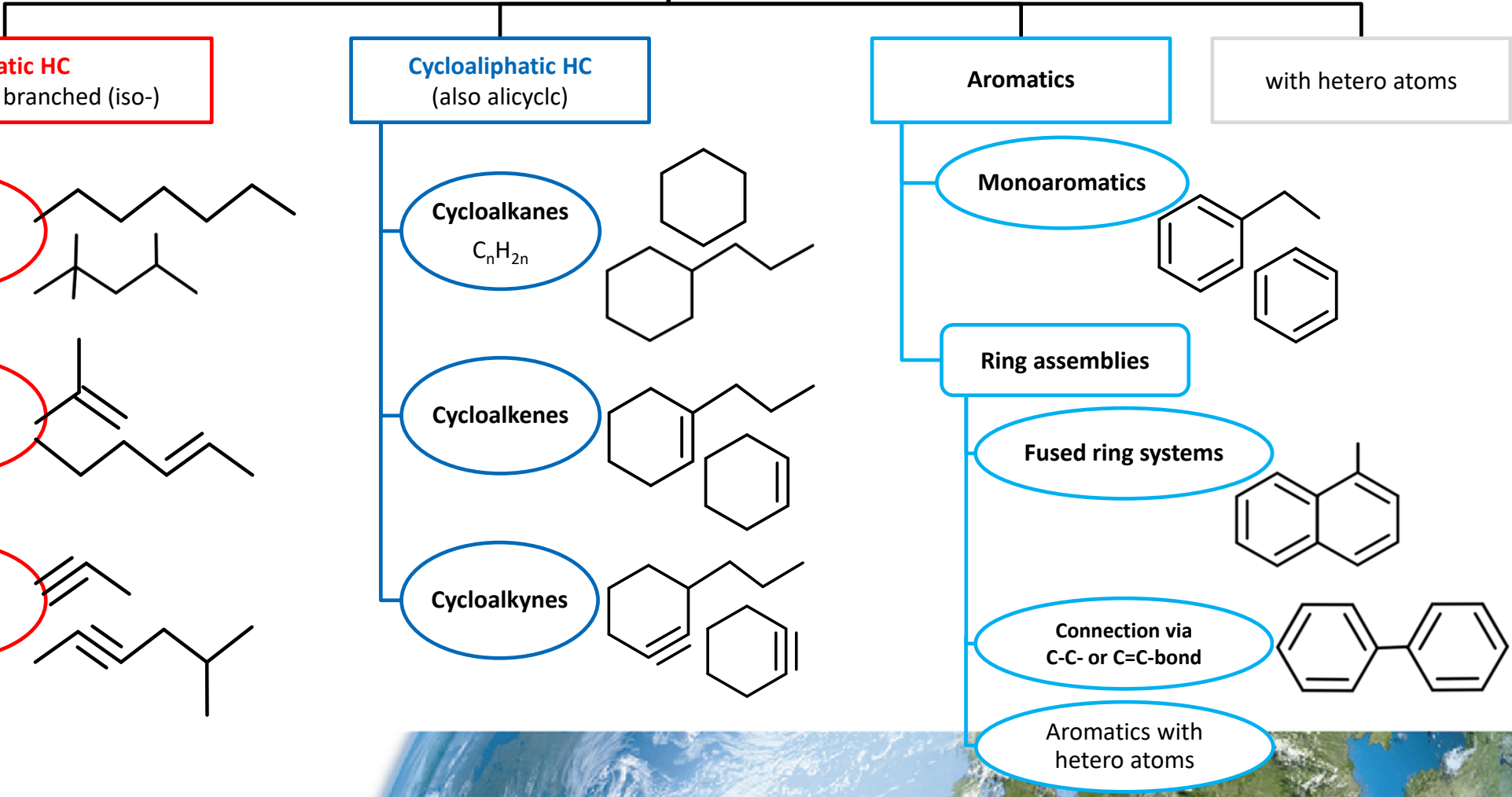
Hydrocarbons (HC)

Consists only of H- and C-atoms; Classification according to their structure



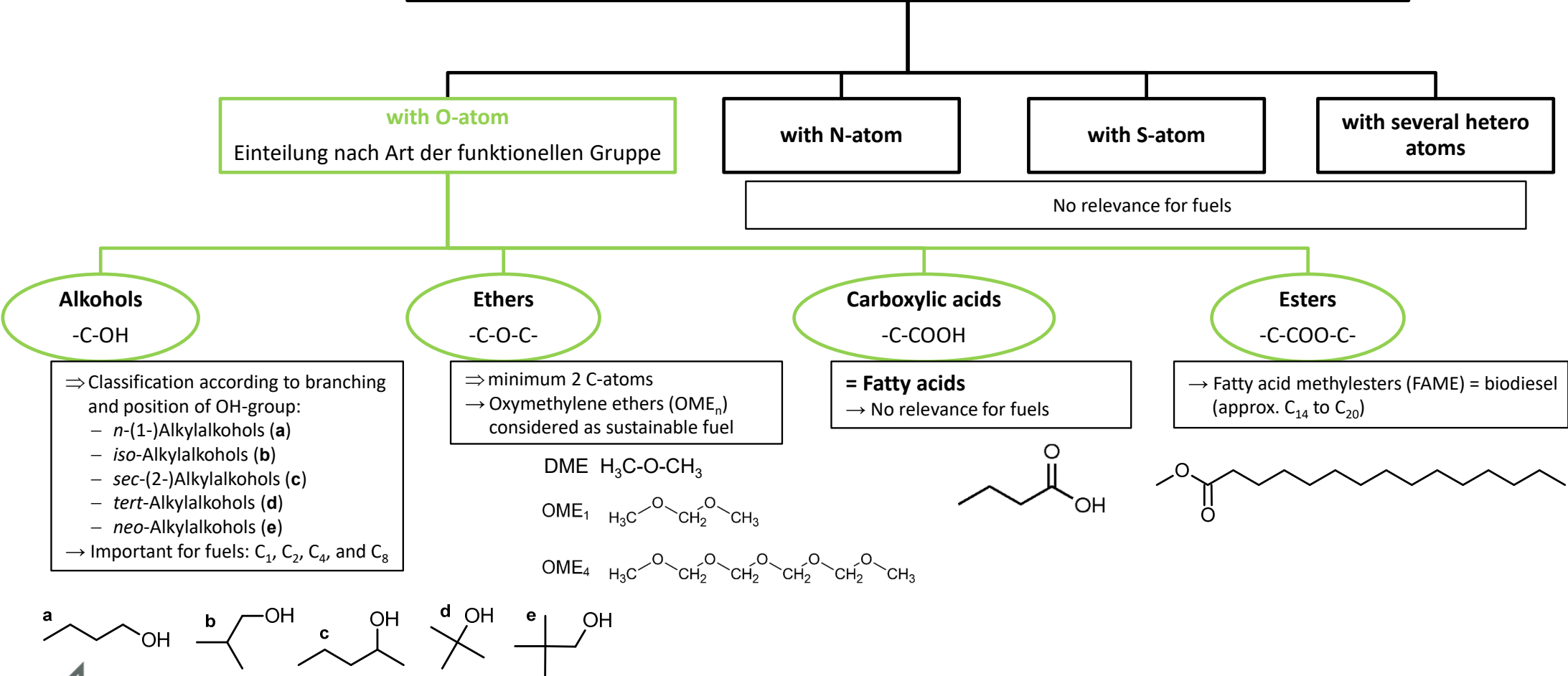
Hydrocarbons (HC)

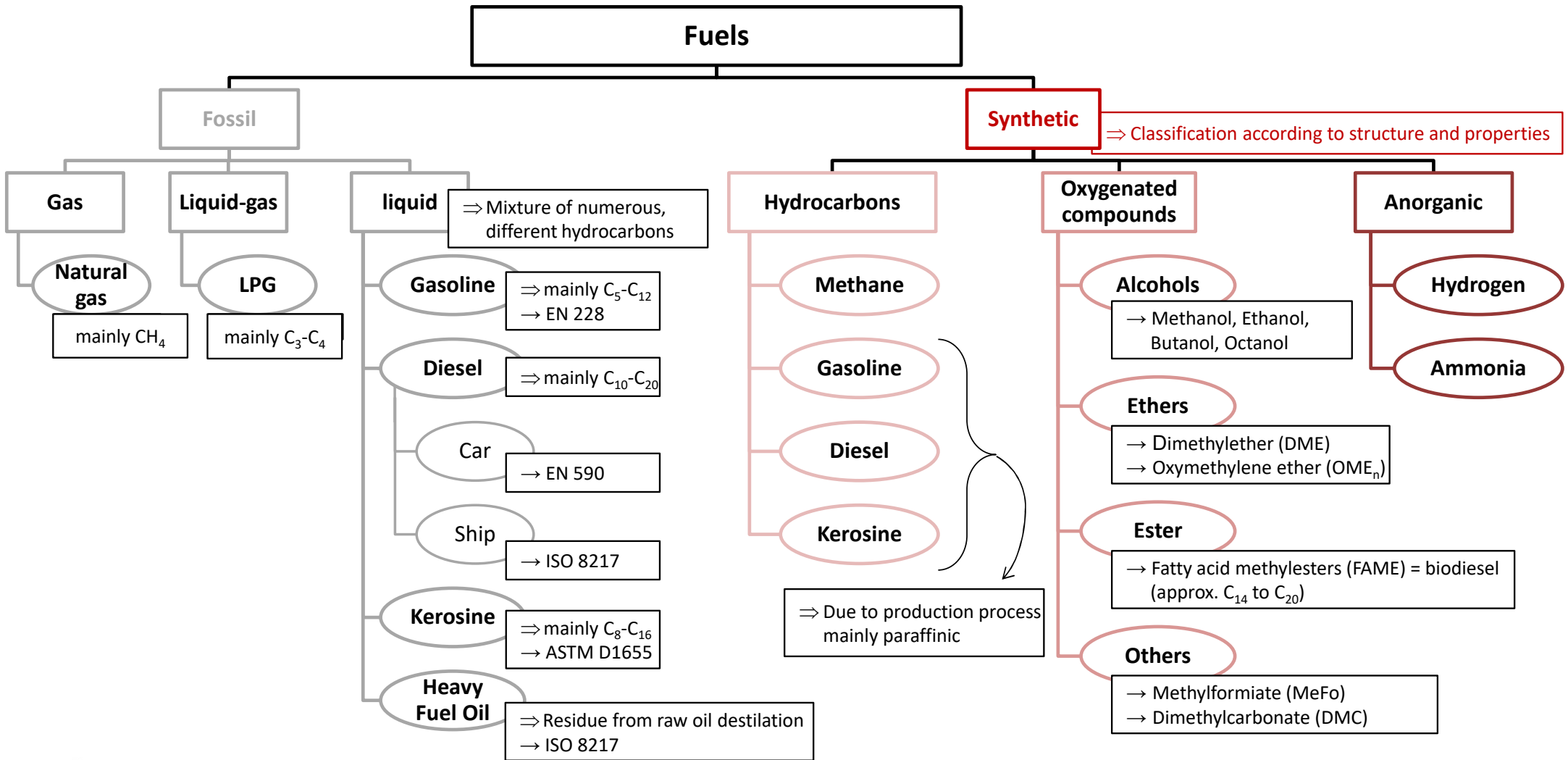
Consists only of H- and C-atoms; Classification according to their structure

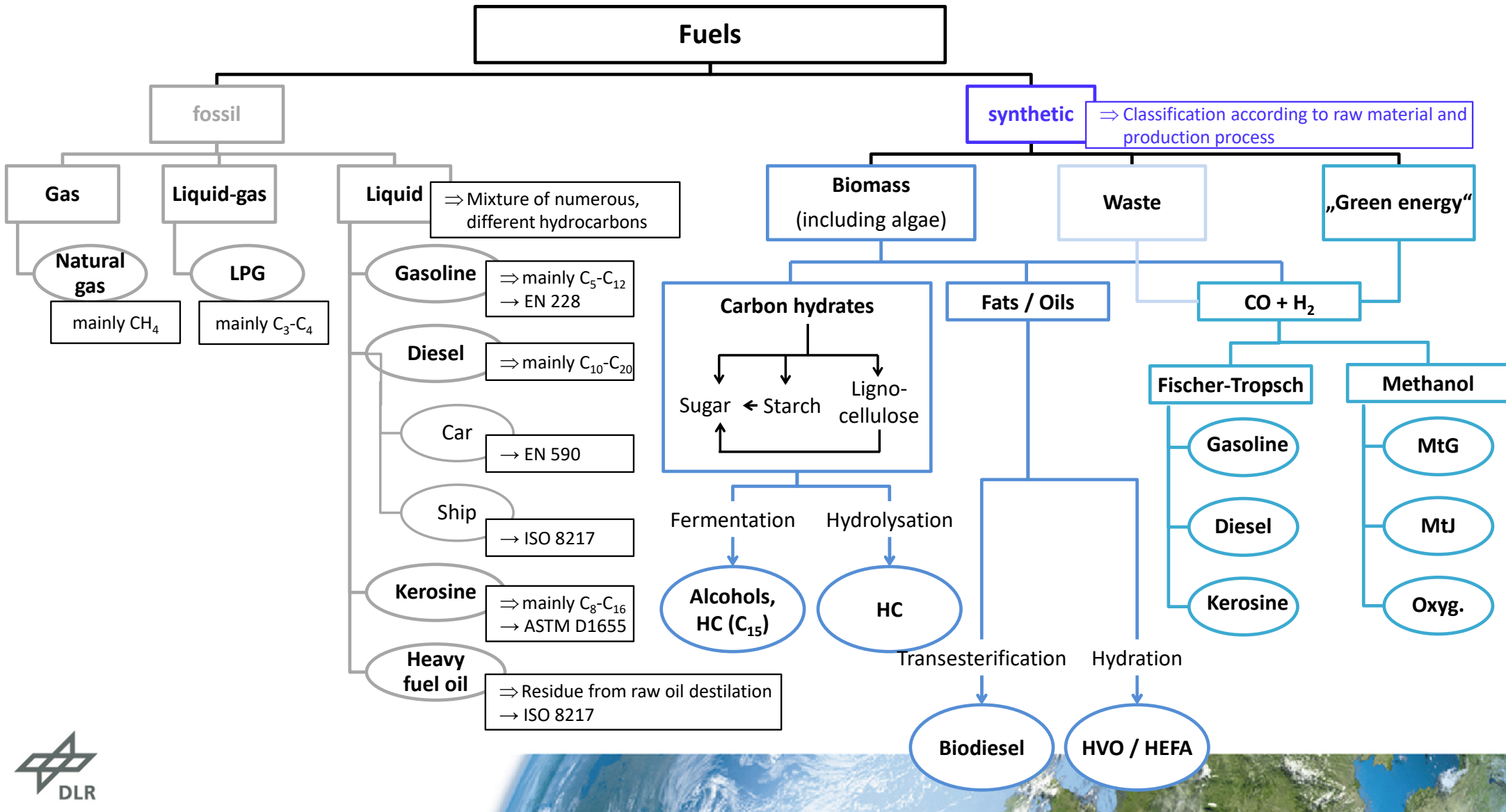


Hydrocarbons with hetero atoms

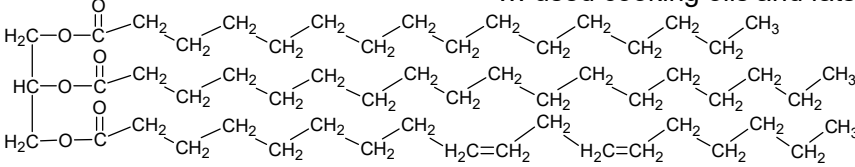
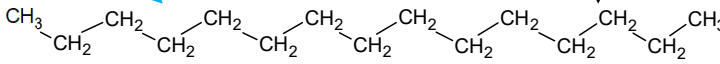




(Classification according to their structure is possible as well)







Extra: Differences of diesel

	Fossil diesel (road transport)	Biodiesel (FAME)	HVO	FT-Diesel	Marine diesel (MGO)
Name		Fatty Acid Methyl Ester	Hydrogenated Vegetable Oil	Fischer-Tropsch-Diesel	Marine Gas Oil
Origin	Raw oil distillation	Transesterification of vegetable oils with methanol 	Hydration of Vegetable oils (old) ... used cooking oils and fats 	FT-Synthesis 	Raw oil distillation (contrast to HFO (= heavy fuel oil) being a residue of raw oil distillation)
Structure	mainly linear but also branched, cyclic and aromatic compounds occur				mainly linear but also branched, cyclic and aromatic compounds occur; average C-number slightly higher than in road transport
<i>Important differences in fuel properties</i>					
Boiling point	360 °C (FBP)	345-354 °C	360 °C (FBP)	360 °C (FBP)	460 °C (FBP)
Density	820-845 kg/m ³	860-900 kg/m ³	765-810 kg/m ³	765-810 kg/m ³	890-900 kg/m ³
Standard	EN 590	EN 14214 EN 590 (→ Usage asB7)	EN 15940	EN 15940	ISO 8217

