



Carbon resources/cycle in the energy system transition

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The logo for CEA (Commissariat à l'énergie atomique et aux énergies alternatives) features the lowercase letters 'cea' in white on a red square background.

i-tese

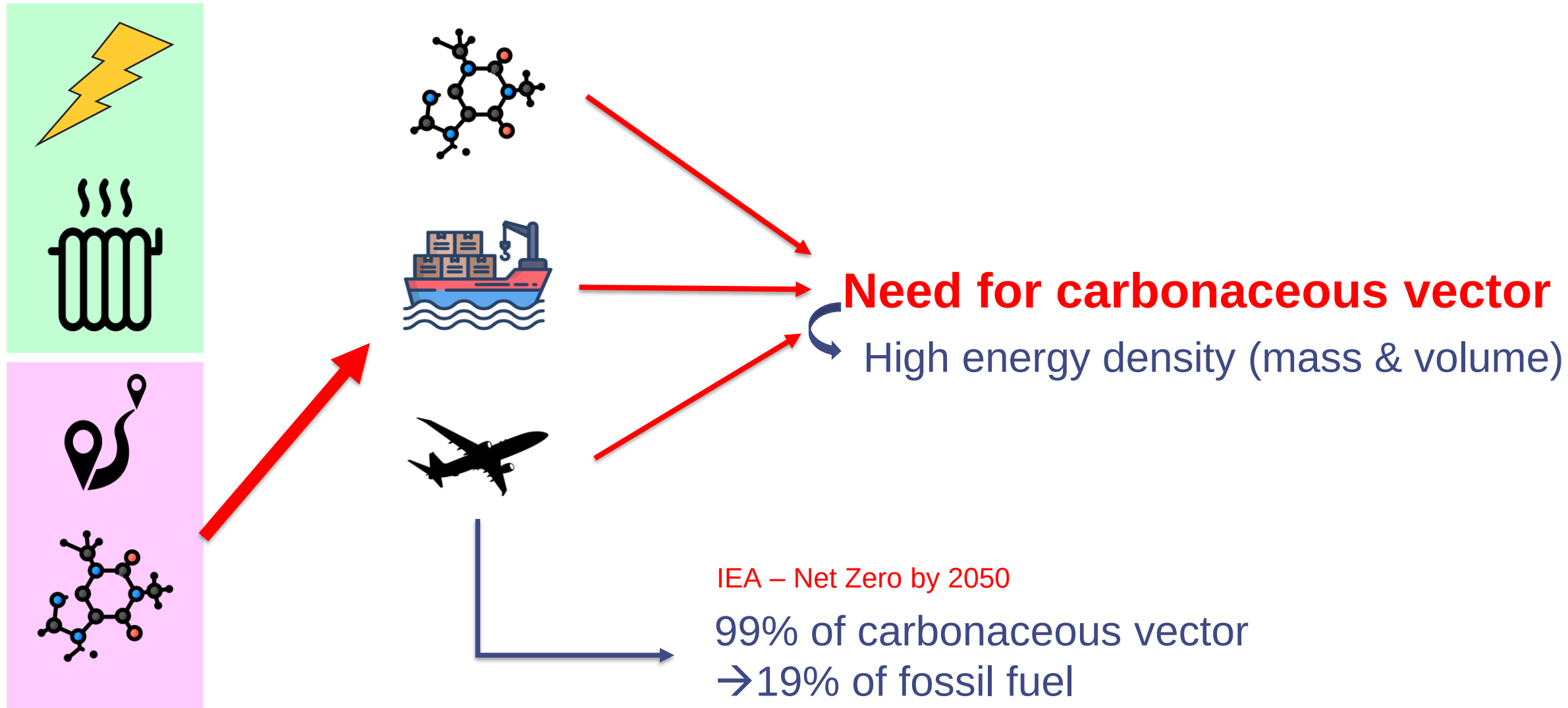
OpenMod Workshop
26th March 2024

■ IPESE
Industrial Process
and Energy Systems
Engineering



EPFL

Defossilize rather than decarbonize

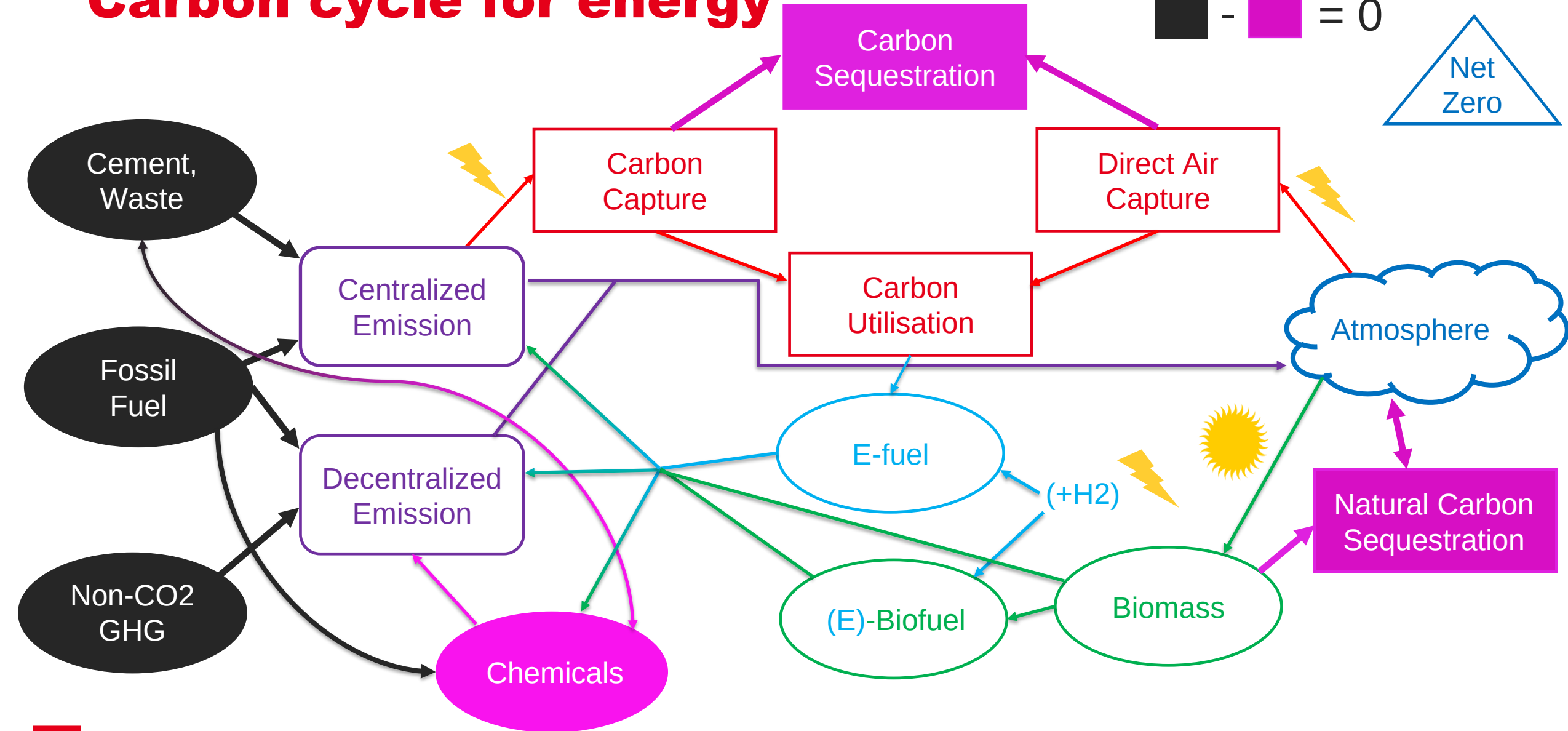




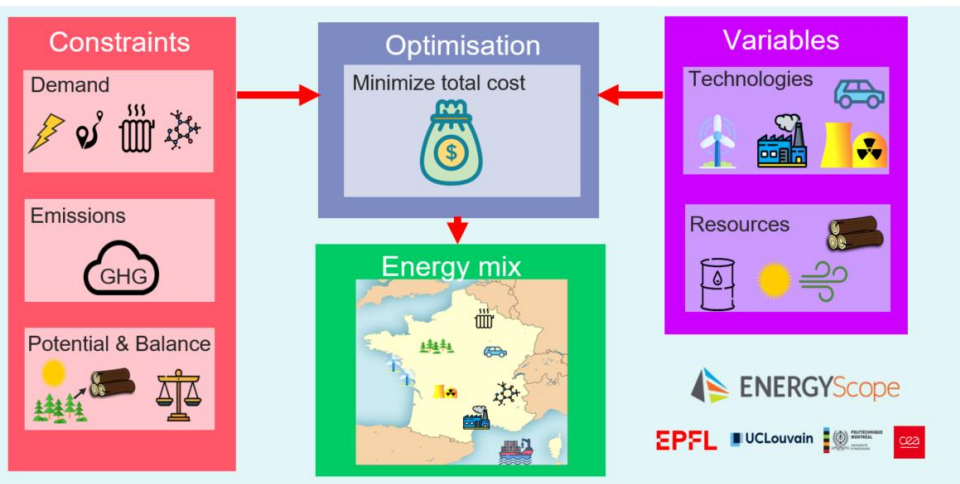
Carbon cycle for energy

$$\blacksquare - \blacksquare = 0$$

Net
Zero



Energyscope Typical Days



Stefano Moret PhD Thesis (2017)
 Limpens et al. (2019)
 Li et al. (2020)
 Merceron et al. (tbp)
OpenMod poster

→ Hourly resolution (TD)

→ Open-source & Open-data

→ Solving in 1 minute

Carbon flow quantification in the energy system

