



EACH

Escola de Artes, Ciências e Humanidades
Universidade de São Paulo



Industrial Ecology Tools for Climate Change Mitigation

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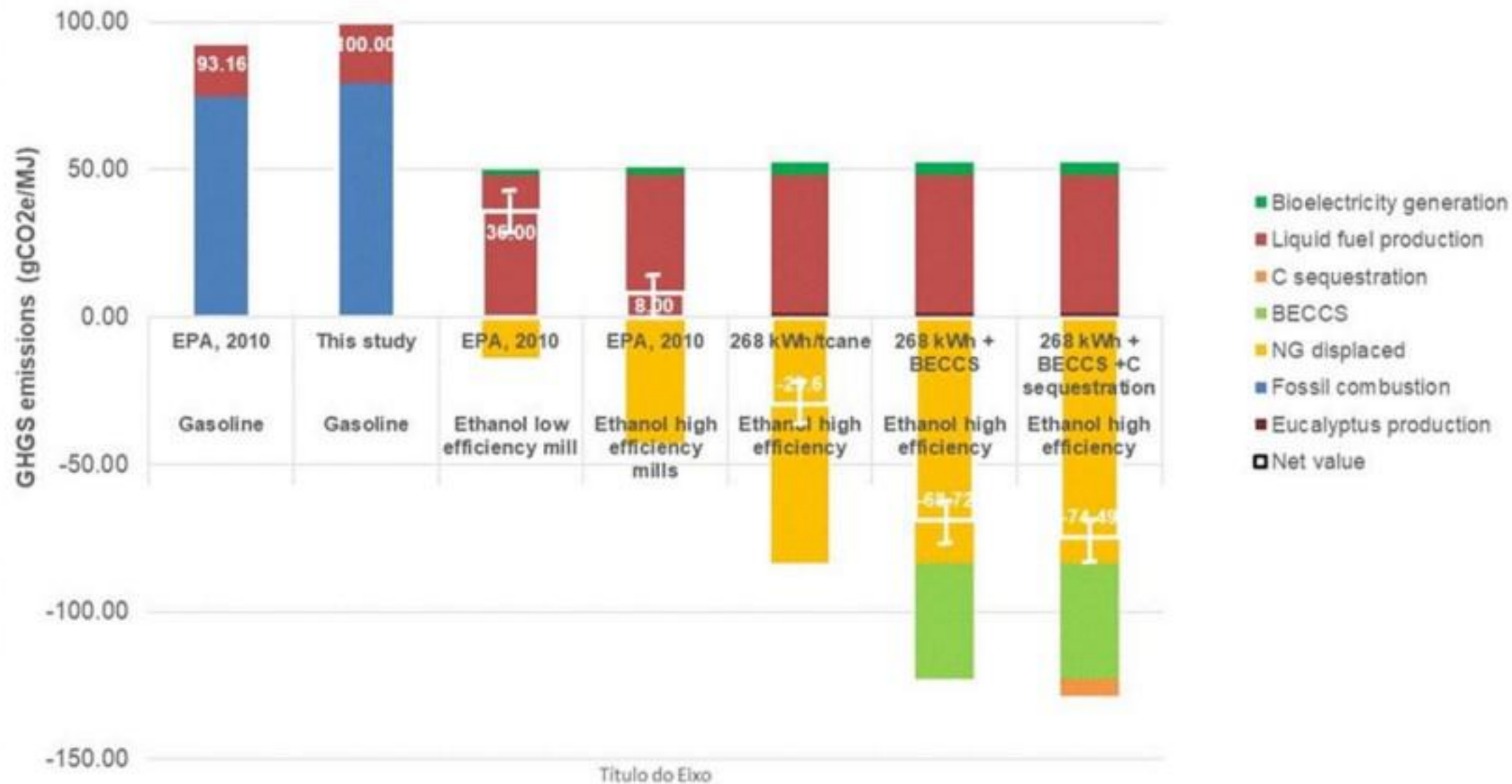
Industrial Ecology Tools, Energy and Sustainability

- Quantitative assessments
- Results => Decision Making
- IE tools
 - Life cycle assessment (LCA)
 - Life cycle costing (LCC)
 - Marginal Abatement Cost Curves
 - Input-output Analysis

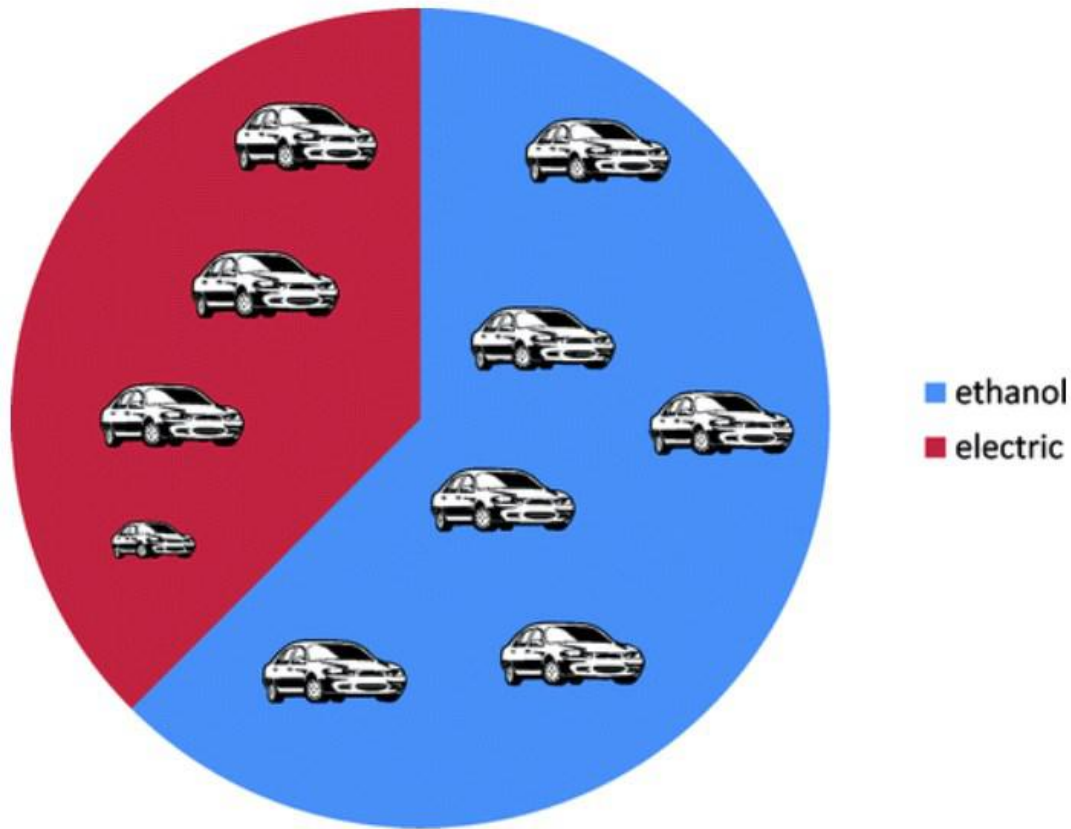


Bioenergy for
transport and
industry

Life cycle emissions of liquid fuels



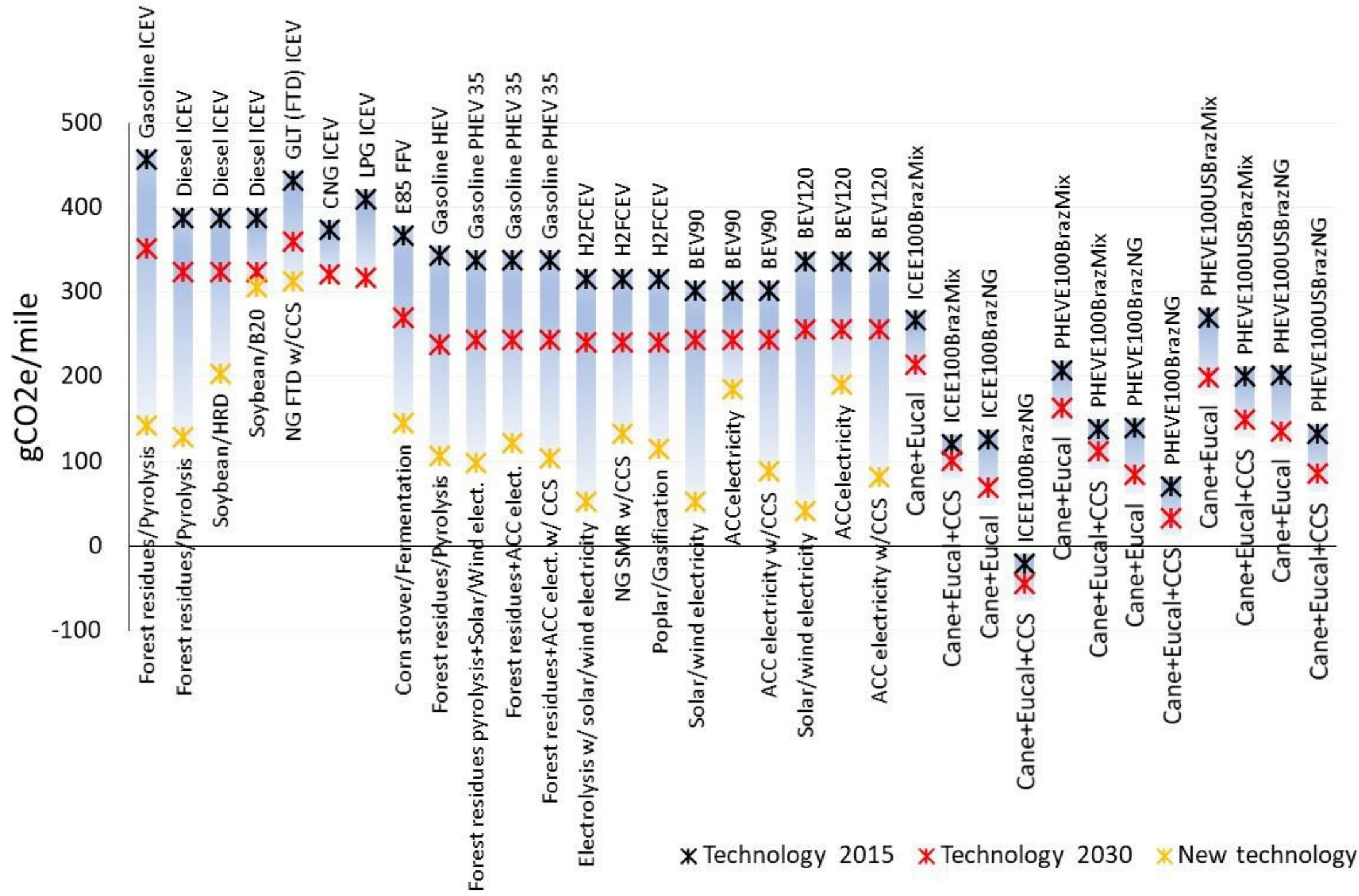
Sugarcane products: ethanol and electricity



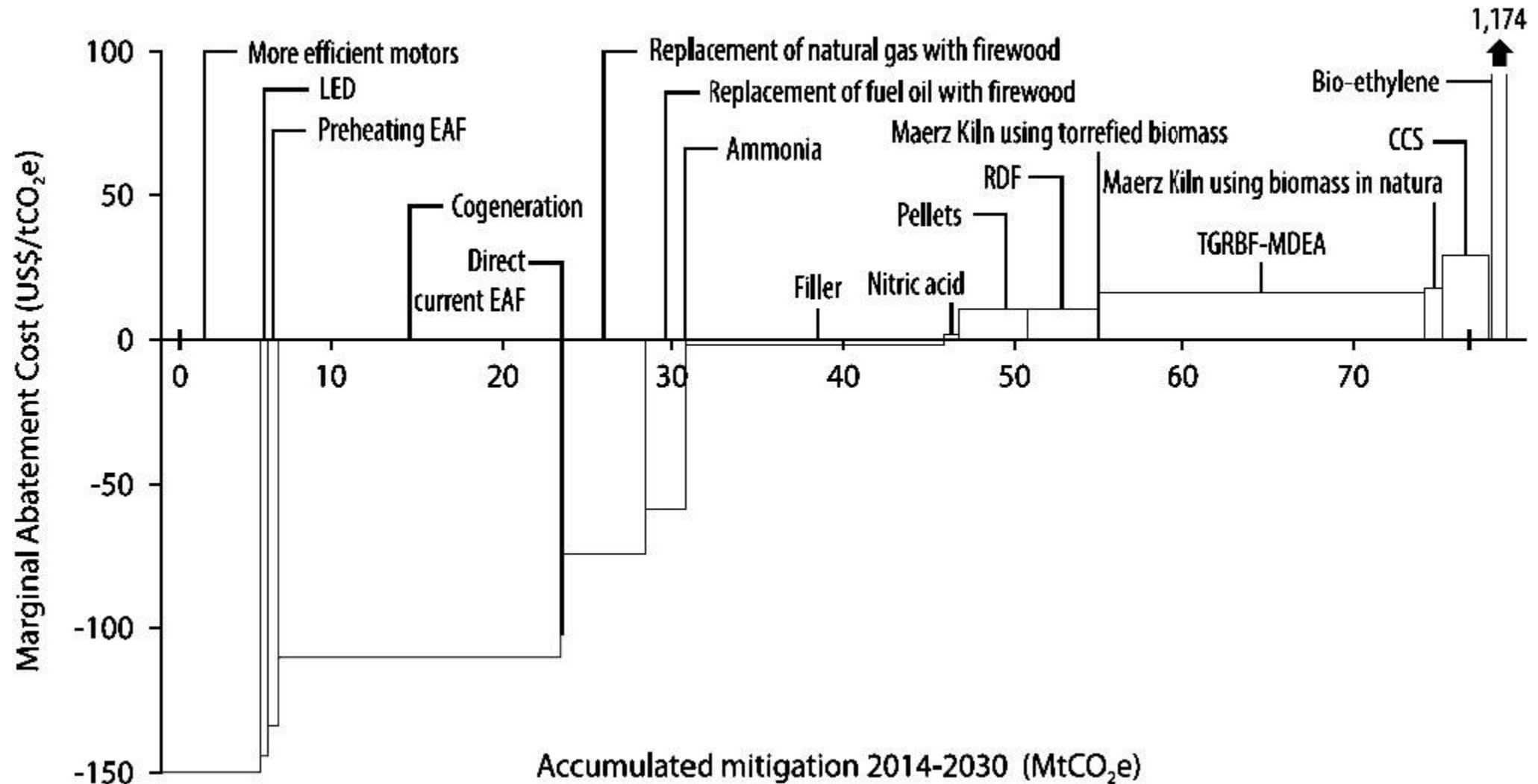
Plug-in
hybrid
vehicles

Figure 2. Number of cars per hectare of harvested sugar cane.

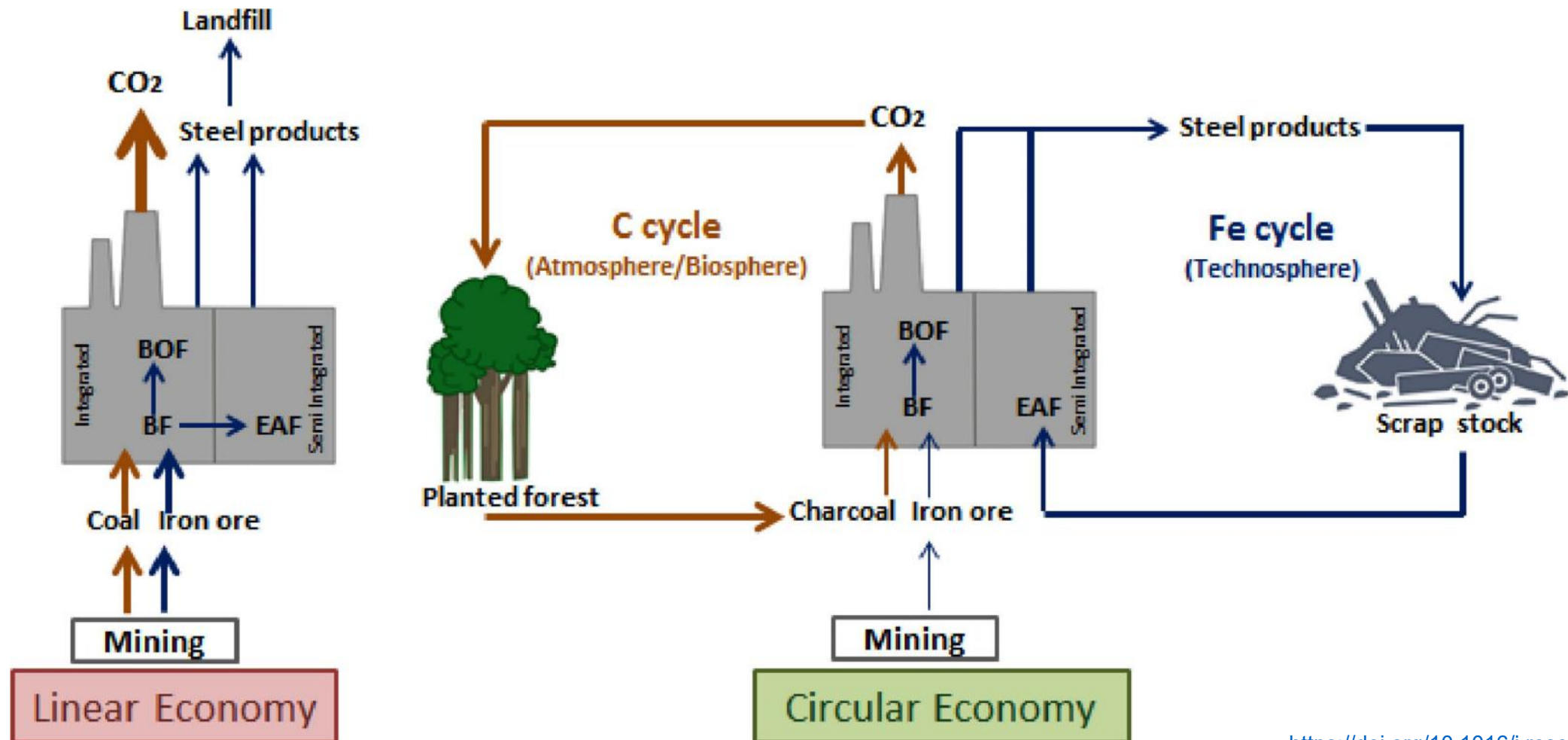
CARBON FOOTPRINT



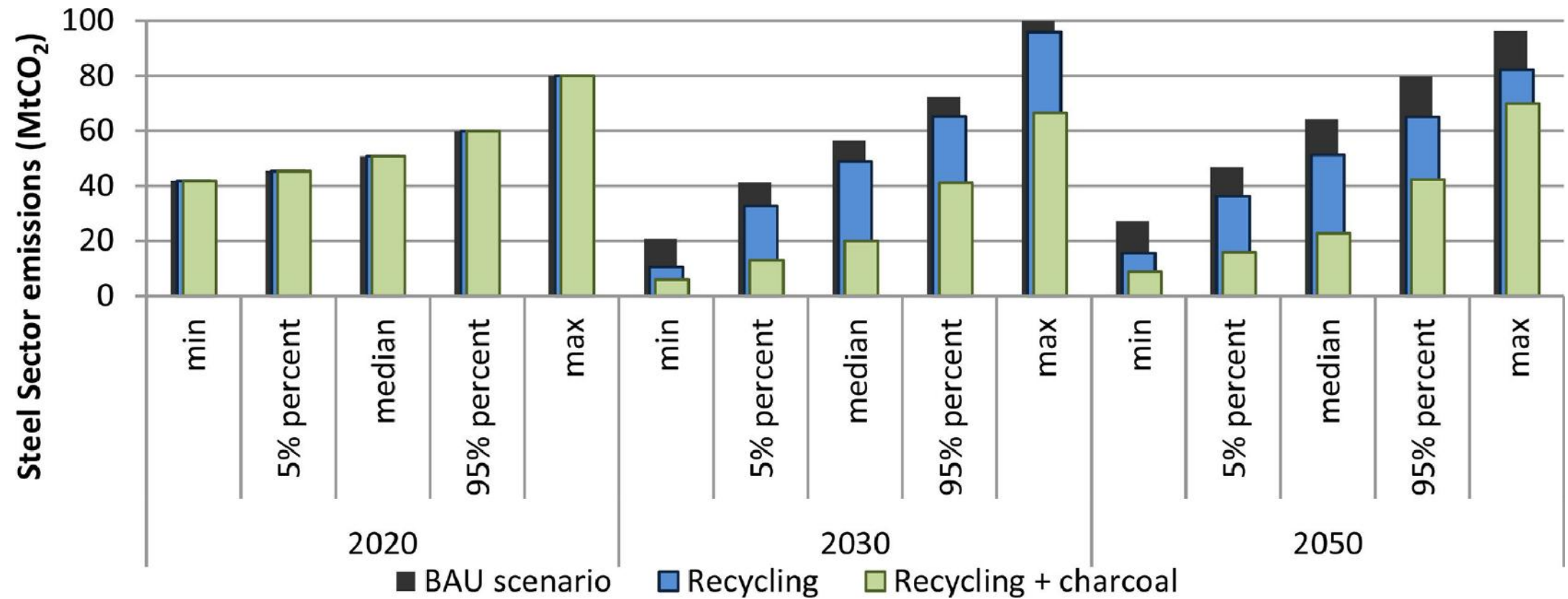
Marginal Abatement Carbon Cost Curve



Steel mills and circular economy



Low carbon scenarios for steel mills



Thank you!

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