



The Need for LCA to build Green Biorefinery Technologies

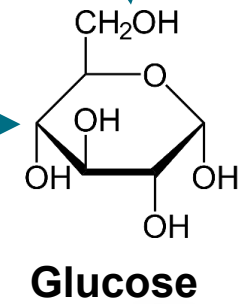
Safety and Environmental Technology Group

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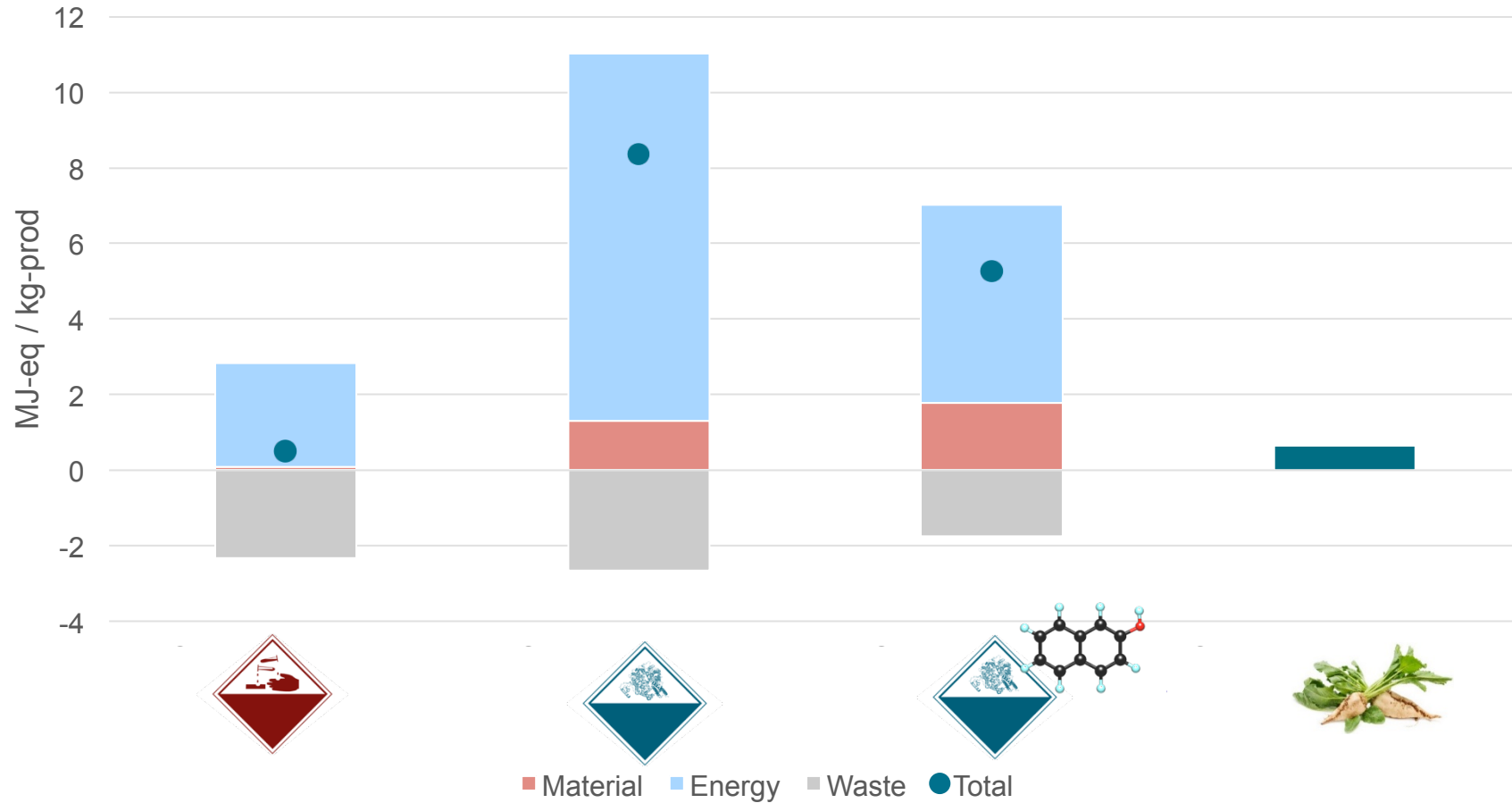
- **Biorefinery**
- **Green Sugar**
- **The Wald-Box**
- **Take Home Messages**

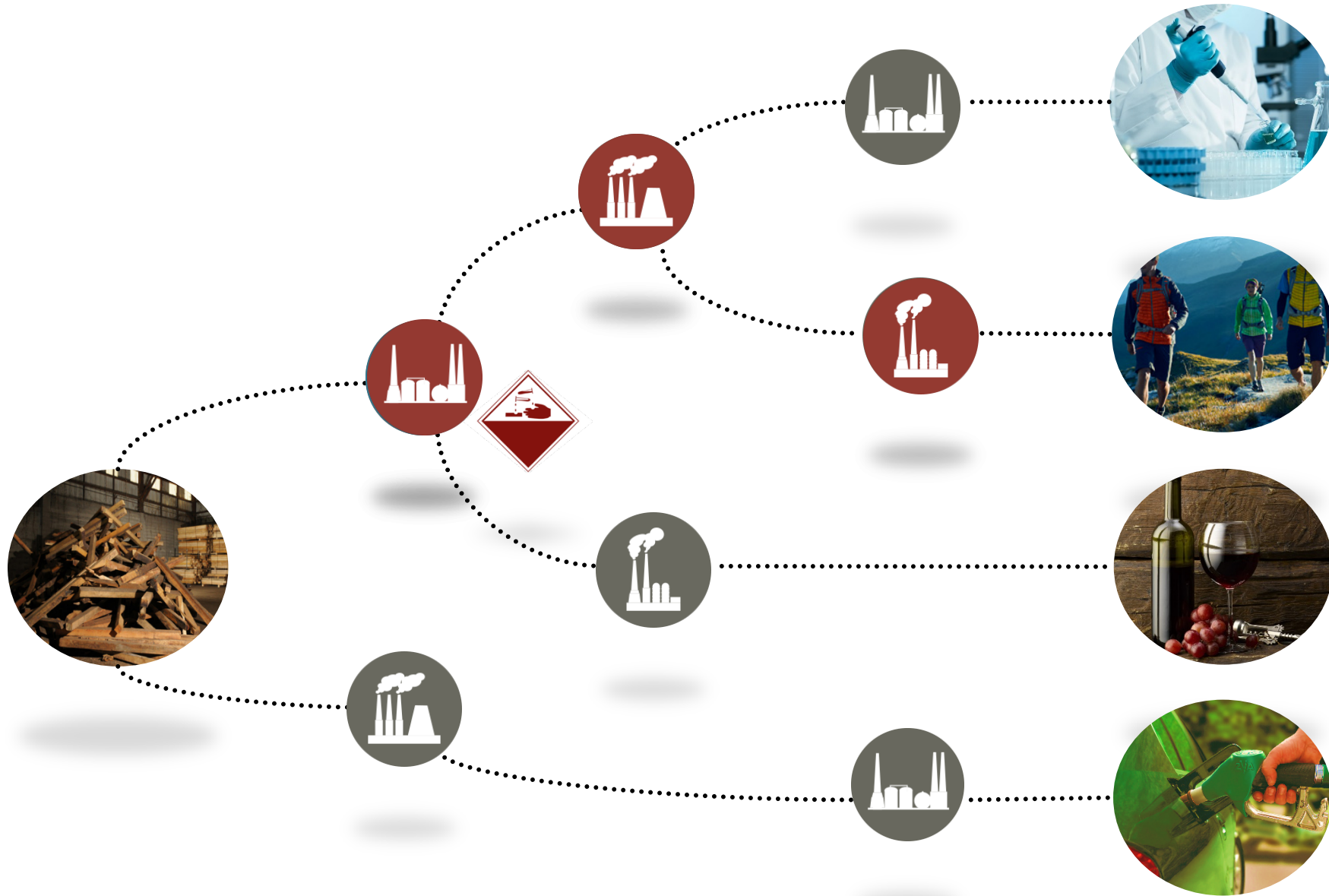


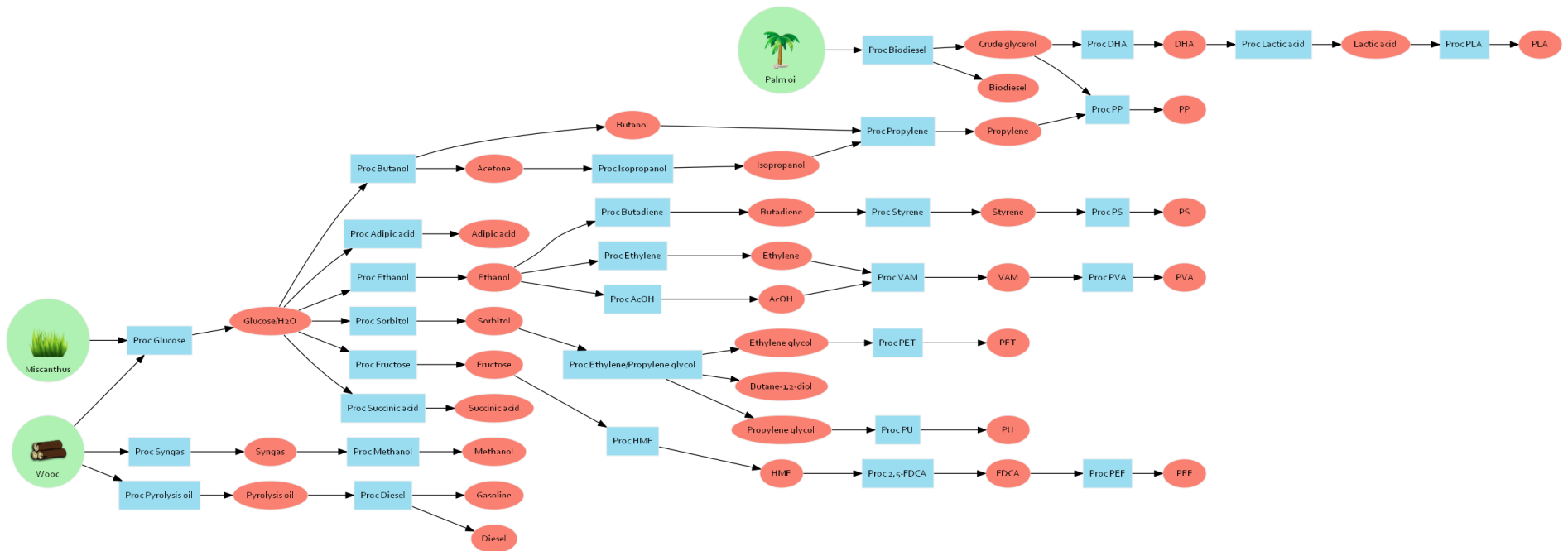




Cumulative Energy Demand









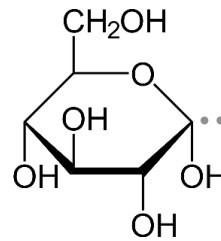
Vegetable Oil



Wood residues

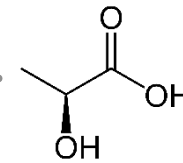


Sugar Beet



Glucose

- 22 % & - 42 %



Lactic acid



PLA

- **Life Cycle Assessment** → Improvement Biorefinery Technology
- **Wald-Box project** → Biorefinery concept



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