ASCENT Supply Chain Tools

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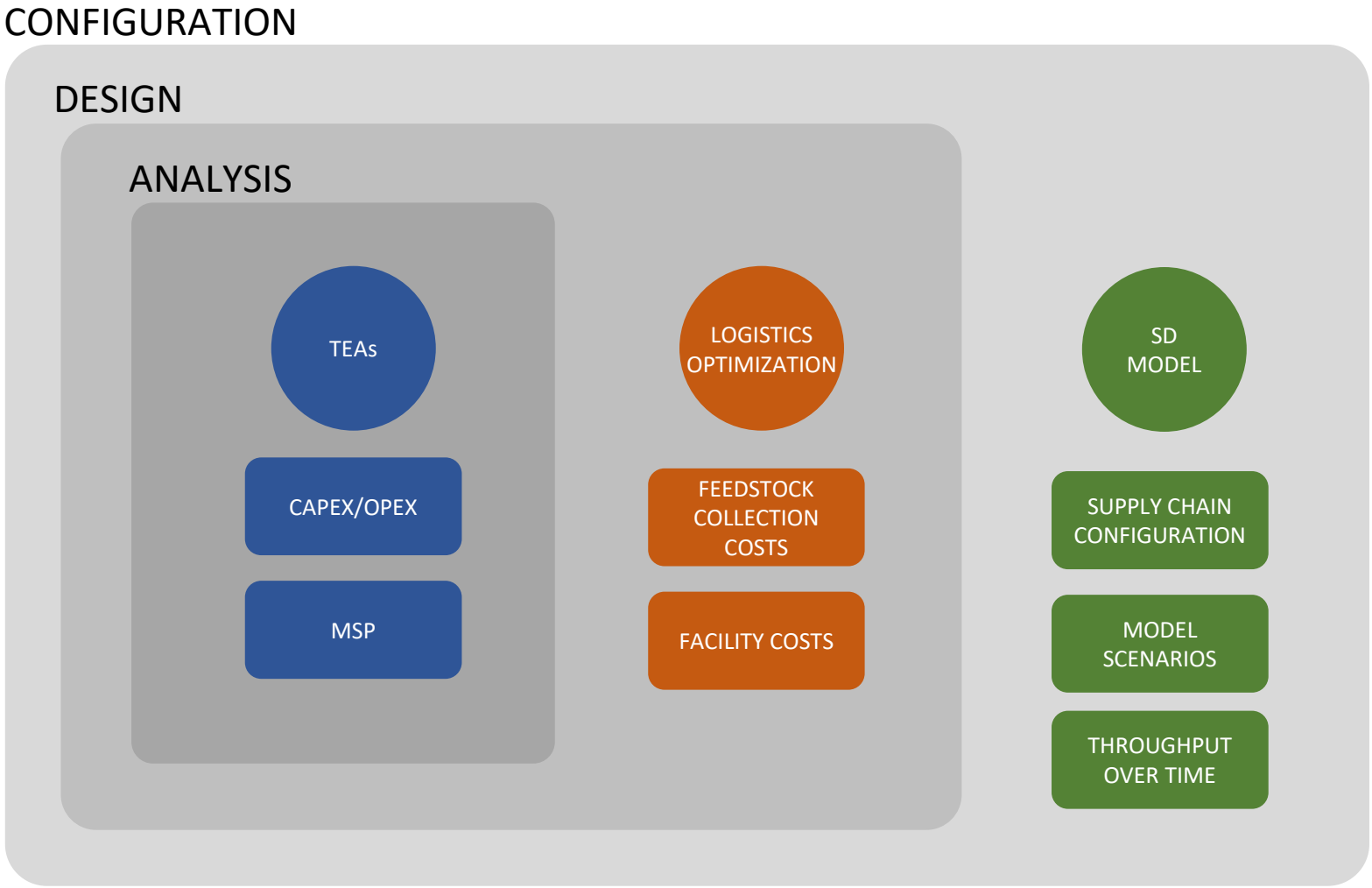
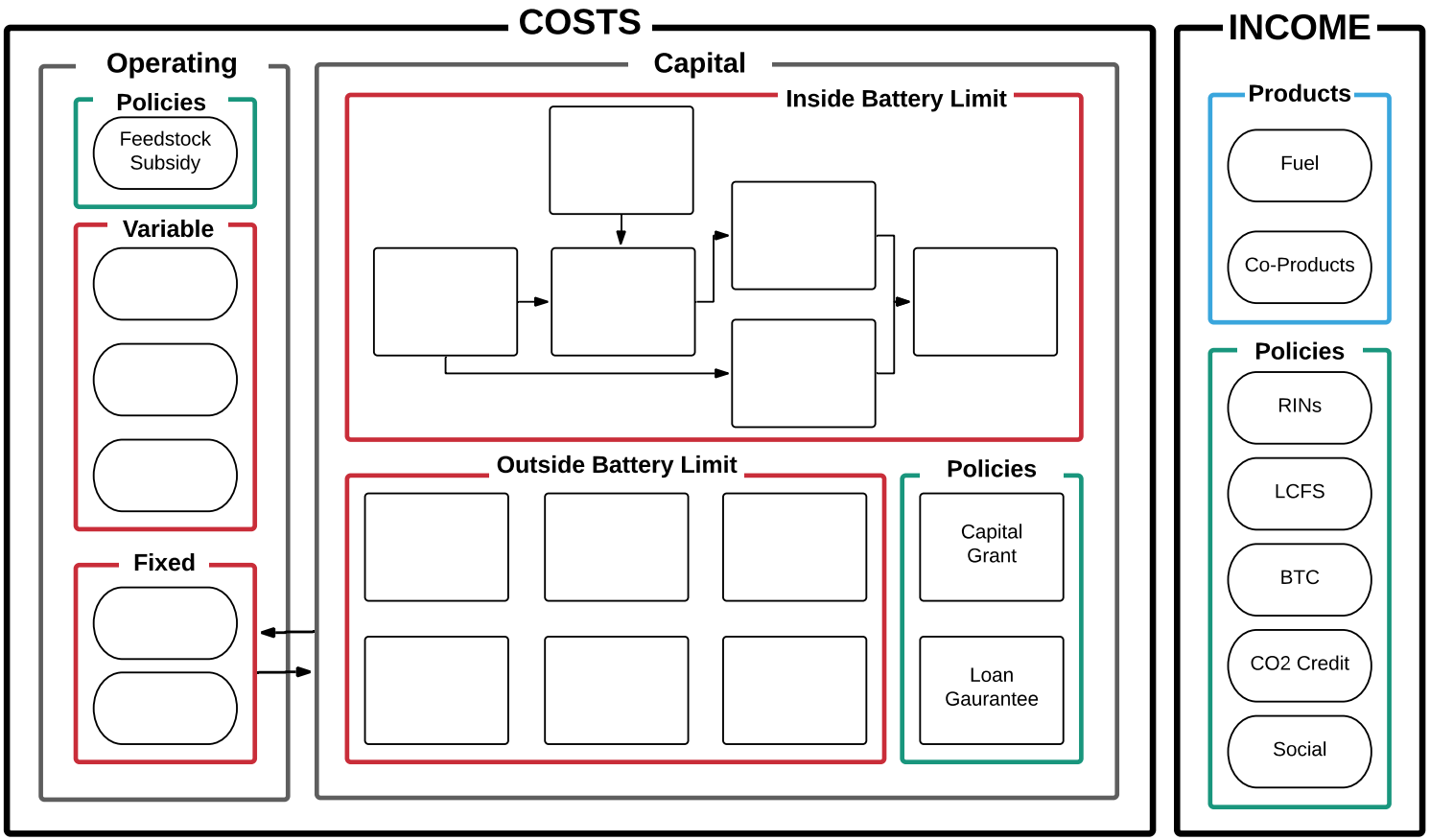
ASCENT Supply Chain Tool Integration

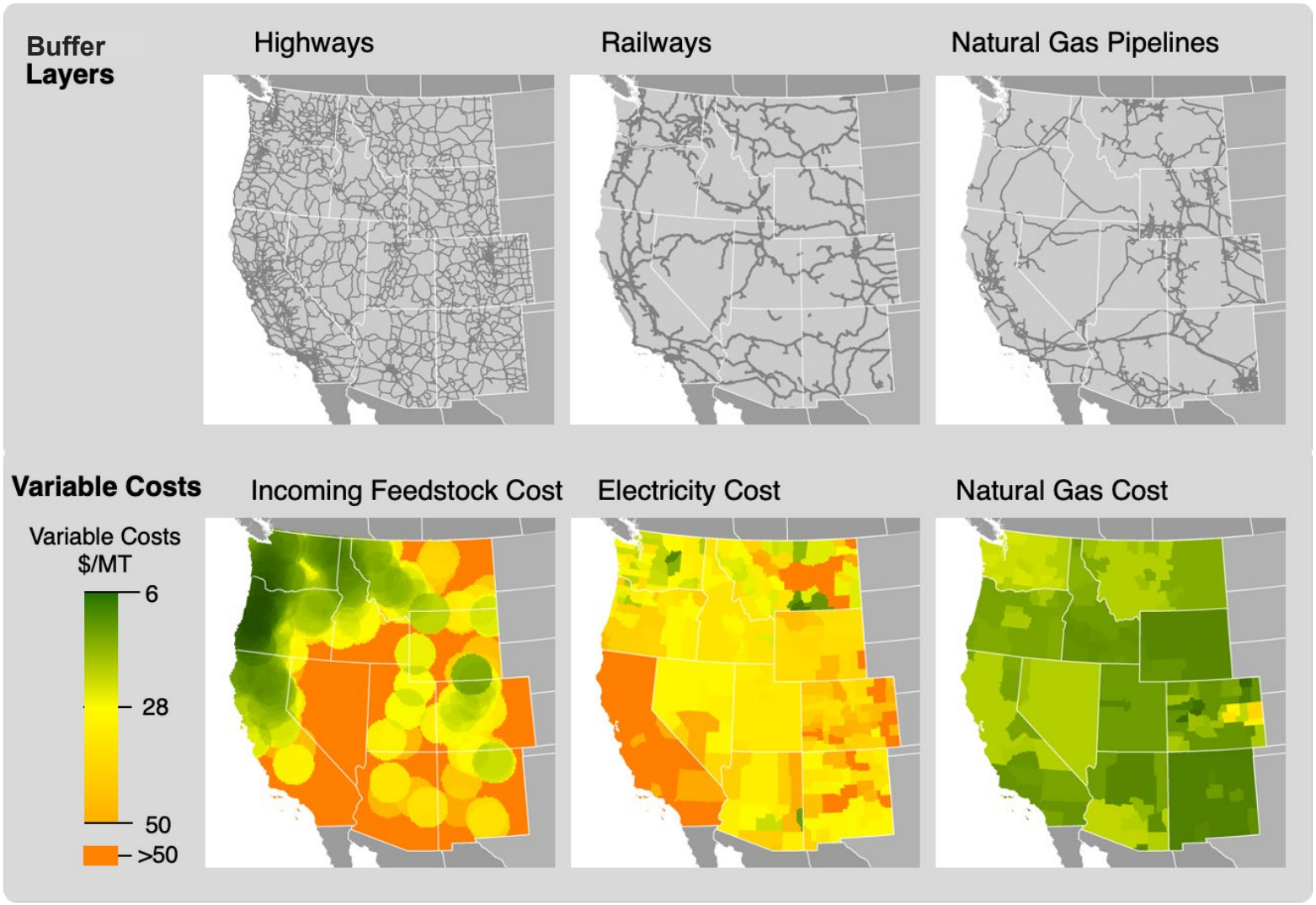


Harmonized TEAs



ICAO "Rules of Thumb" → https://www.icao.int/environmental-protection/Pages/SAF_RULESOFTHUMB.aspx
https://rex.libraries.wsu.edu → "Techno-economic analysis" + Open access + Model + Dataset

Resource Siting Models



Optimization

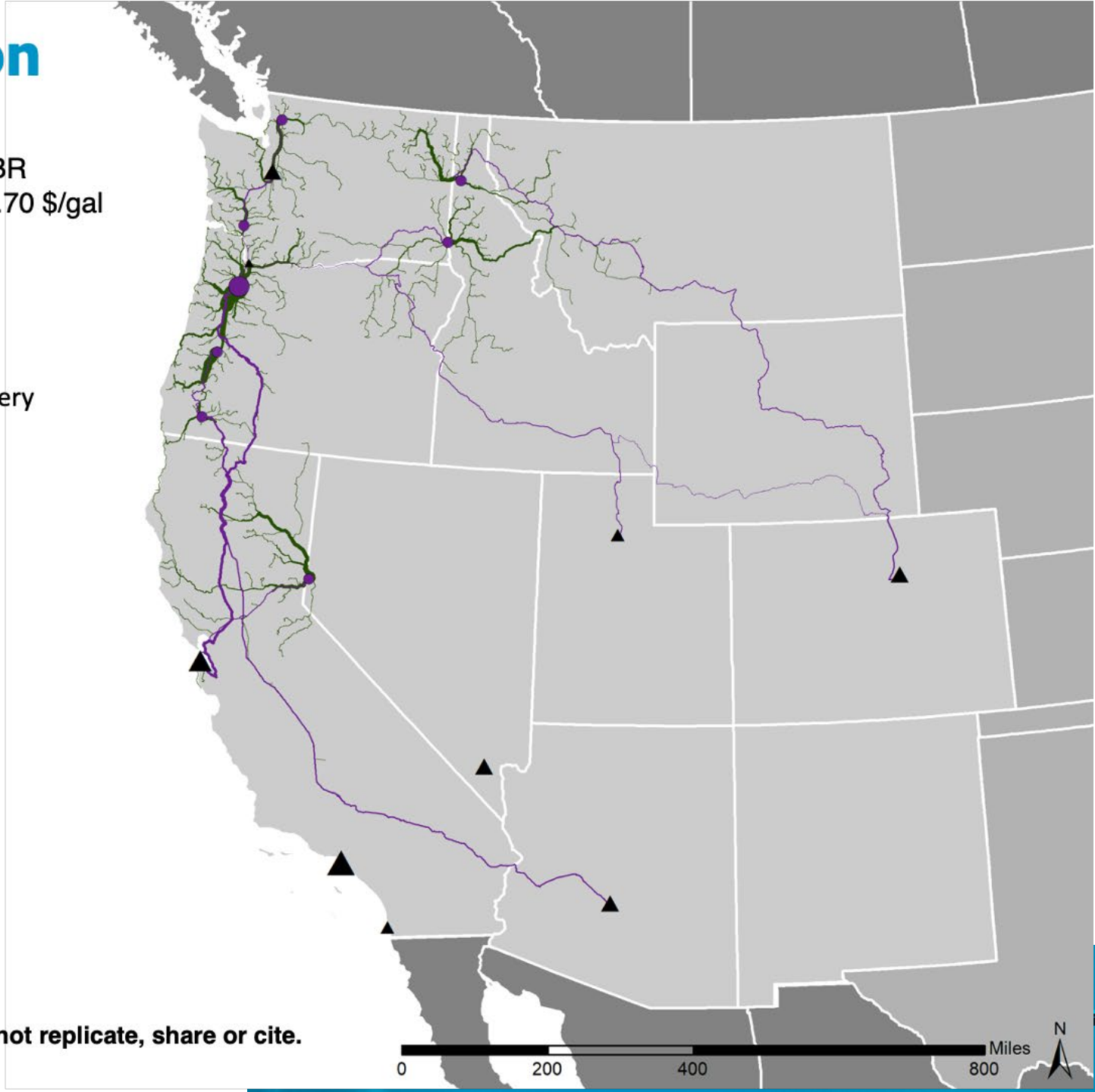
Scenario
Structure: IBR
Jet Fuel Cost: 5.70 $/gal

Nodes

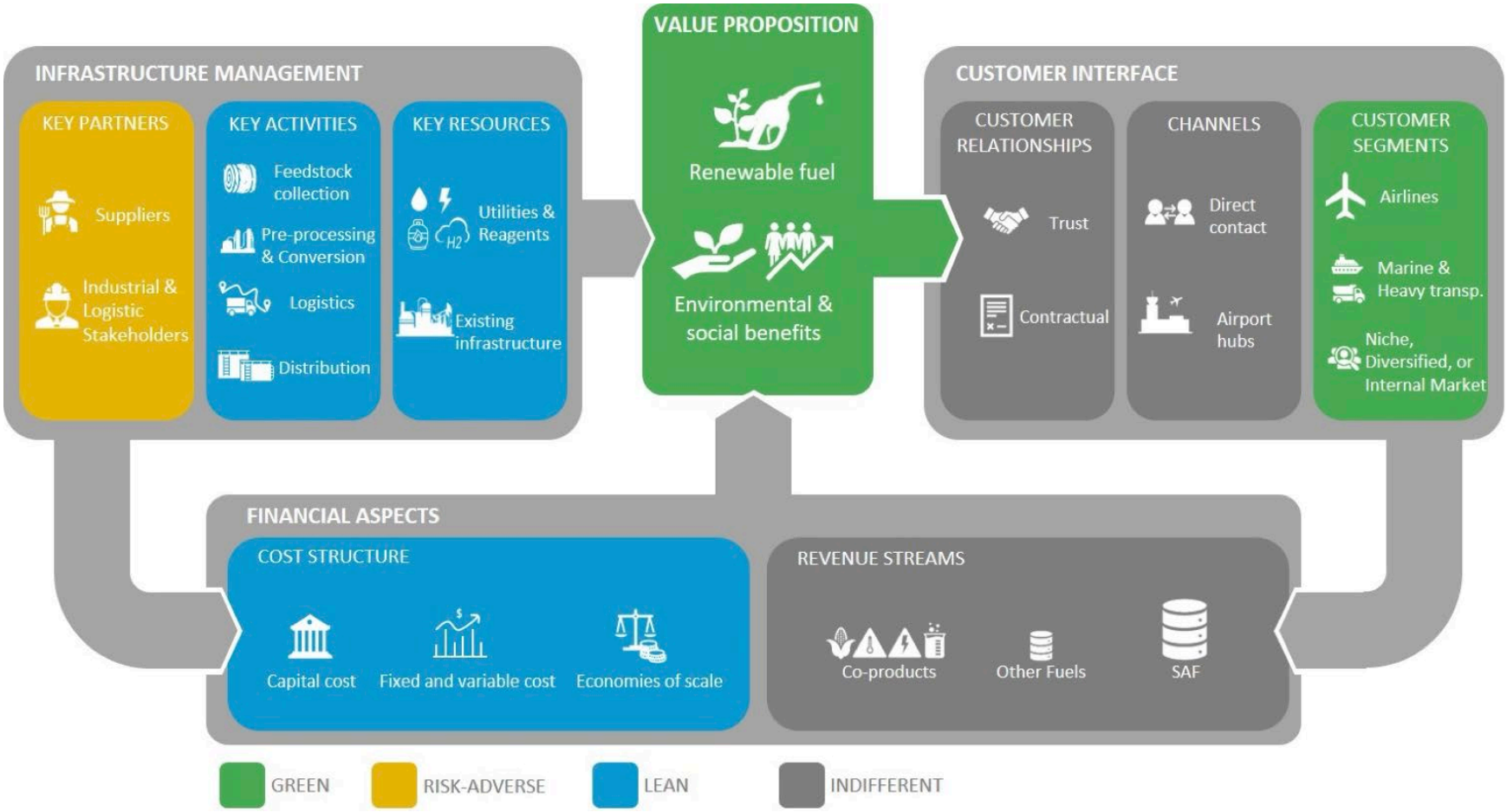
- Airport
- IBR/Upgrading Refinery

Links

- From Feedstock
- To Airport

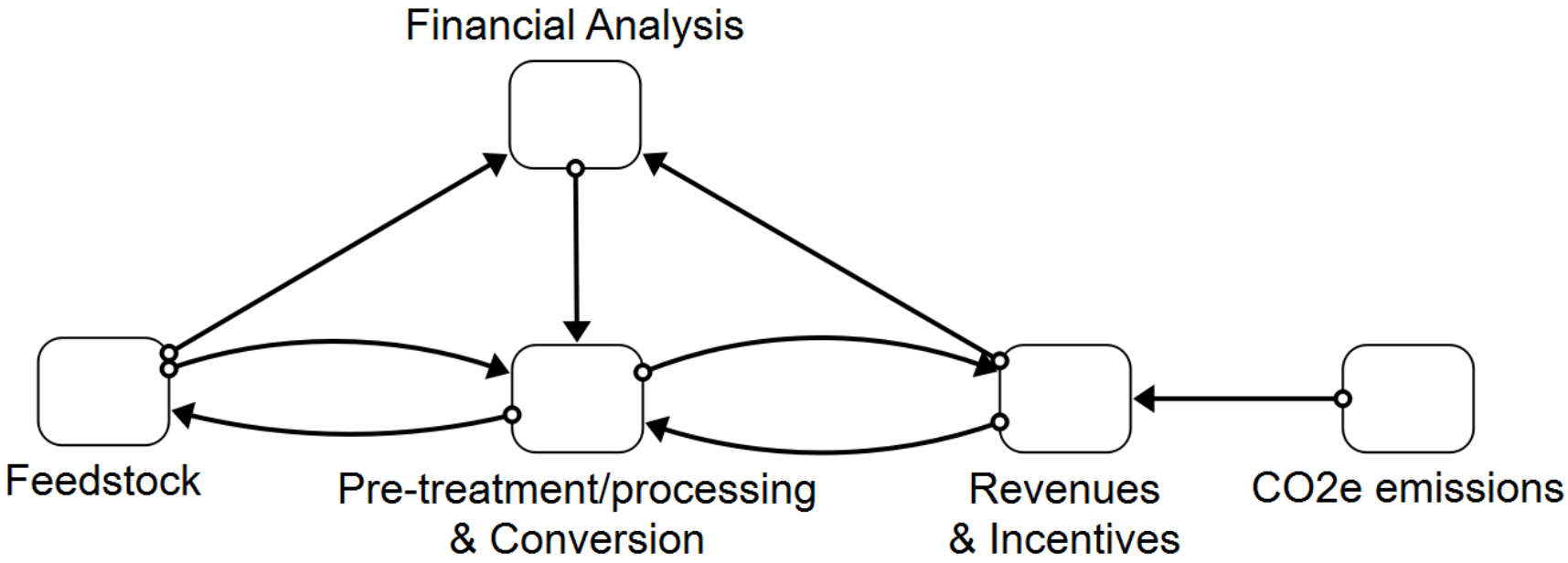


Supply Chain Configuration – Commodity + Services



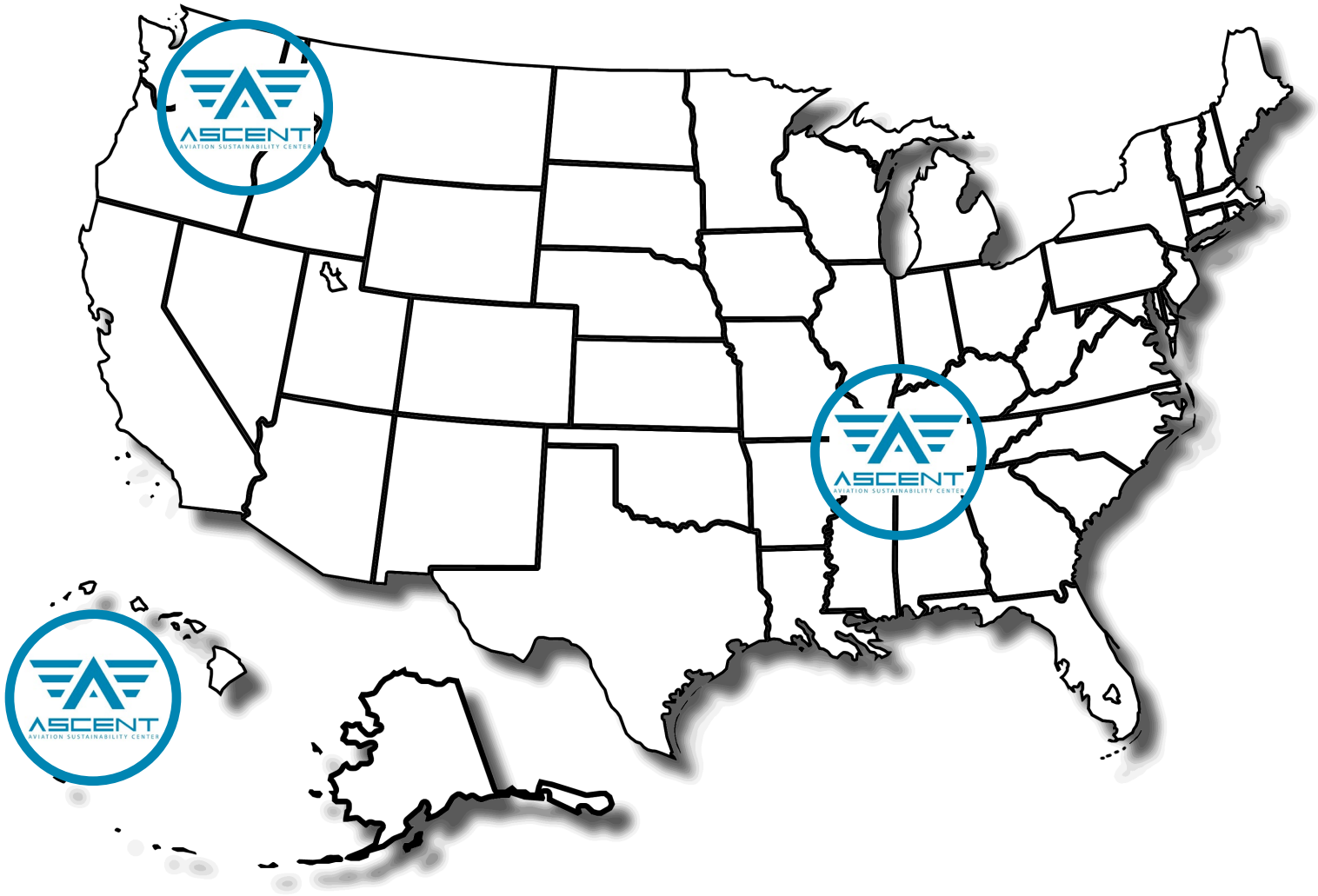
Martinez-Valencia et al. 2021 - https://doi.org/10.1016/j.rser.2021.111680

System Dynamics Model



Current Model – Gasification FT of MSW Deterministic and Stochastic

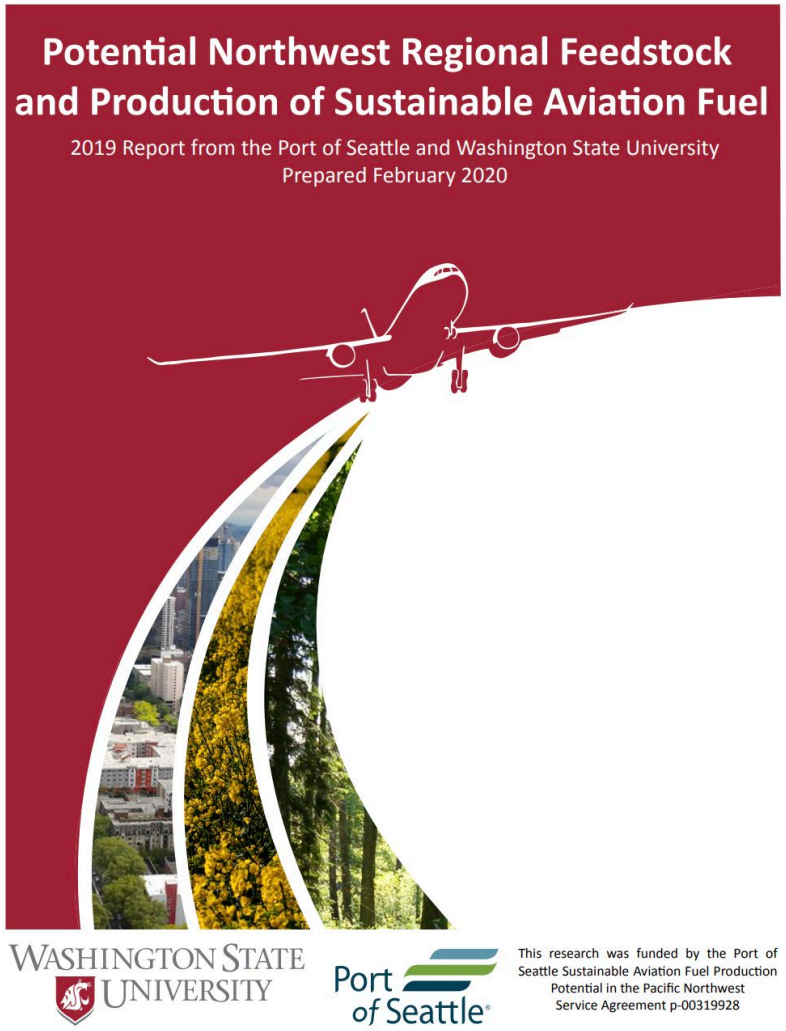
ASCENT Regional Projects



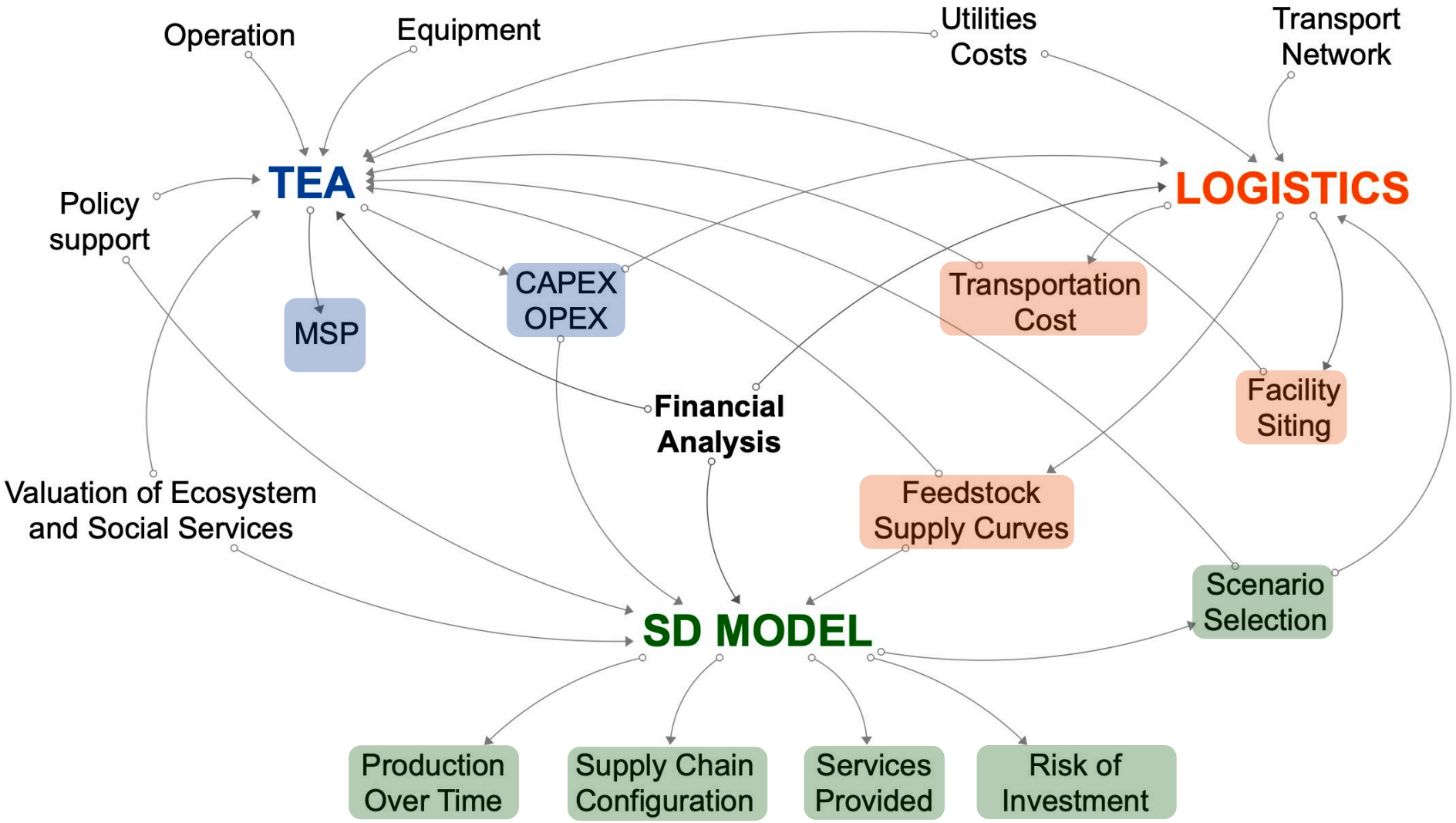
Pacific Northwest Regional Efforts

- Washington State Aviation Biofuels Workgroup
  - Since 2015
  - WA Clean Fuels Standard
- Port of Seattle – Regional Assessment
  - ASCENT Supply Chain Tools
  - Lipids/HEFA
  - MSW/GFT
  - Forest Residual/GFT/ATJ

https://www.portseattle.org/sites/default/files/2020-08/PofSeattleWSU2019updated_appendix.pdf



Supply Chain Model Integration



QUESTIONS