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Graphing Tools for Well-to-Wheel Results

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Representing CONCAWE Team Members

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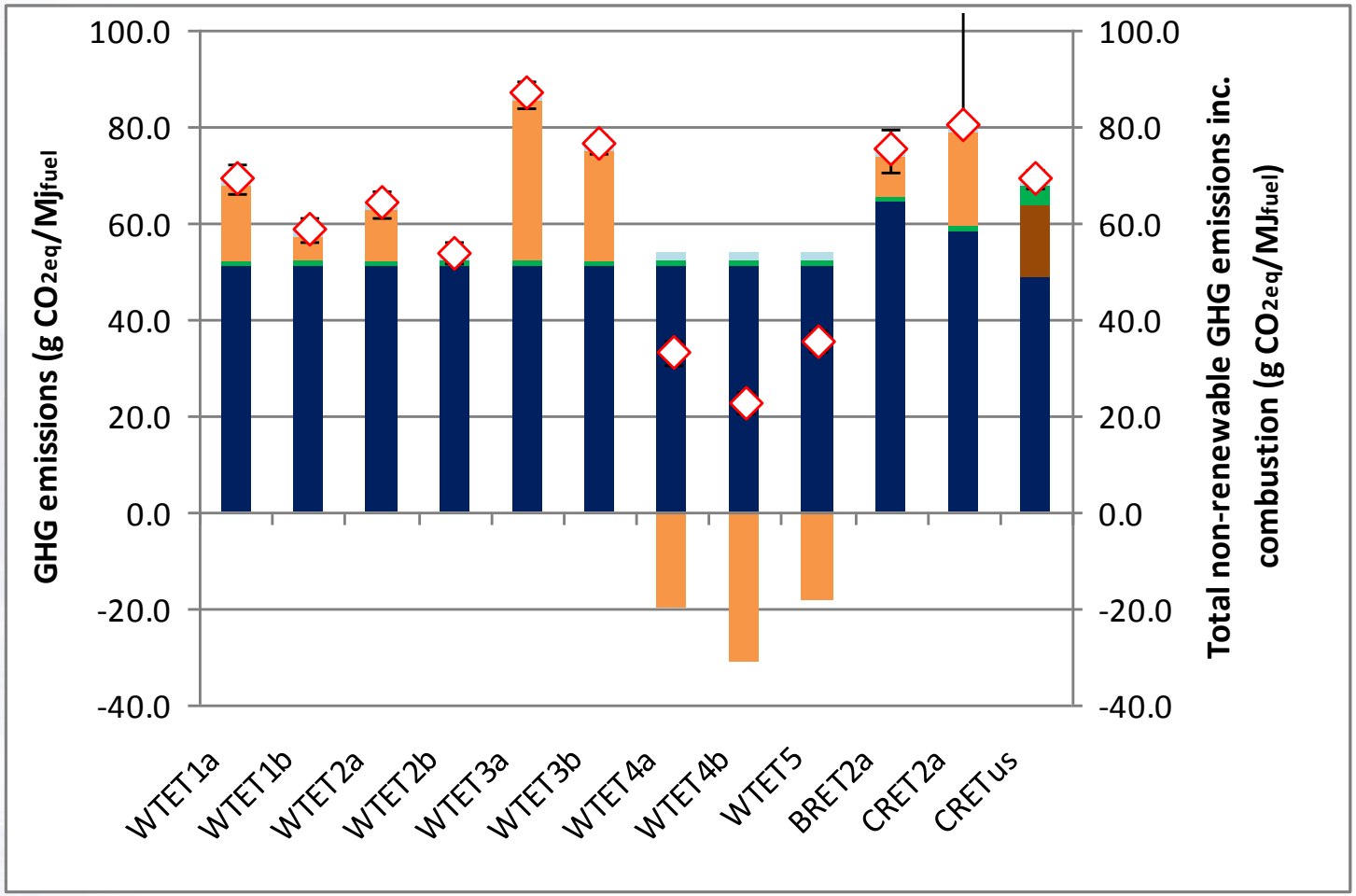
Graphing Tool for WTW Results

- Let's face it! Understanding WTW results without graphs is impossible!
  - Multiple pathways, different outputs, and different units of interest



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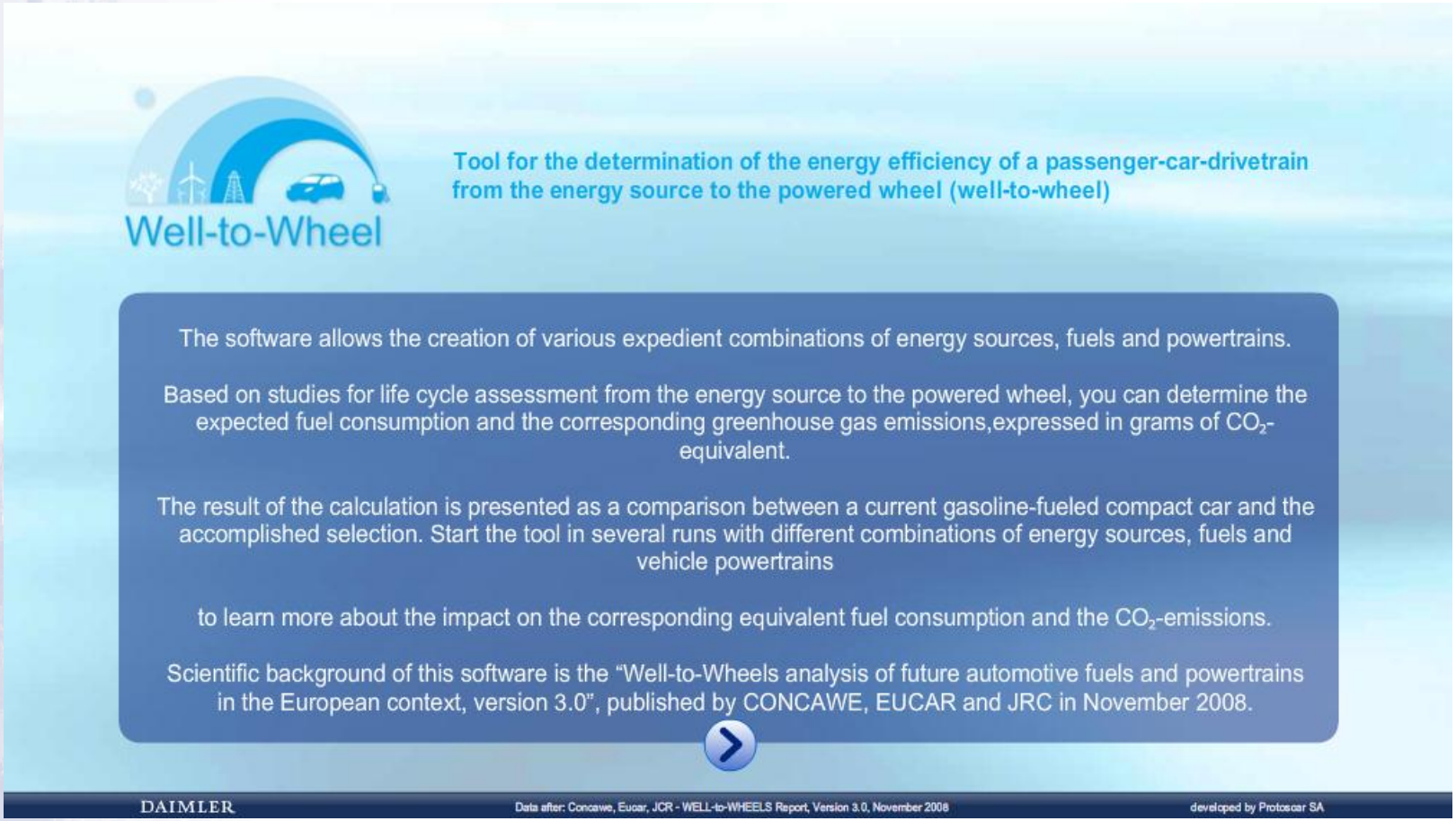
Graphing Tool for WTW Results: Optiresource

- This problem has been recognised by others (Daimler, in this case) resulting in the recently released Optiresource graphing tool



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Graphing Tool for WTW Results: Optiresource

- Selectable pathways and easy-to-visualise outputs driven by the JEC WTW results Version 3

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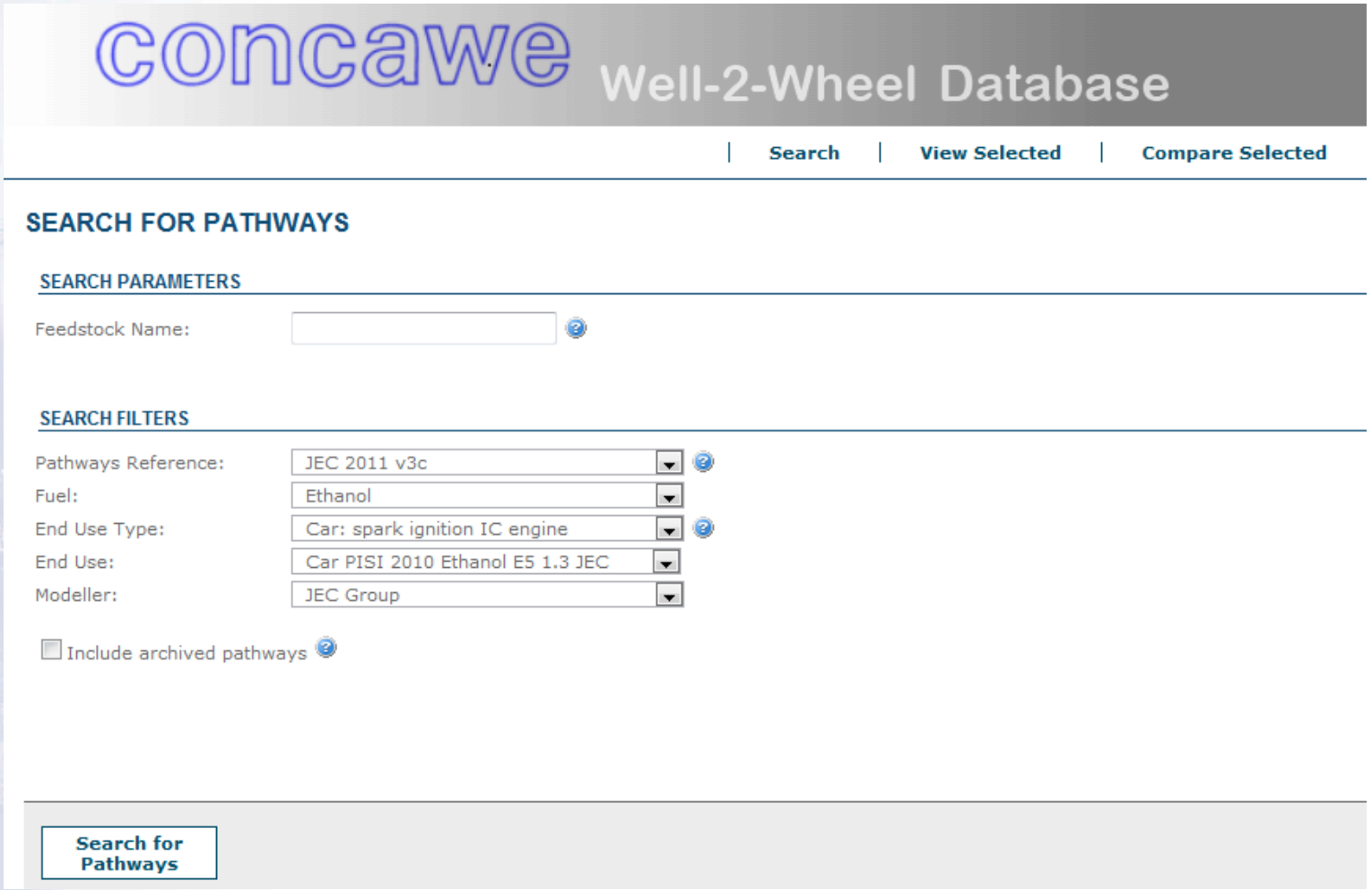
Graphing Tool for WTW Results

- This is such a good idea that we are working on a similar tool!
  - Offers opportunity to improve transparency of JEC WTW results



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Graphing Tool for WTW Results

concawe Well-2-Wheel Database

| Search | View Selected | Compare Selected | Cle

SEARCH RESULTS FOR PATHWAYS

Your Search Provided the Following Pathways

☐	CONCAWE GPME1a / Methanol / NG-CIS	E3 Database	JEC 2011 v3c	Natural Gas
☐	CONCAWE GPME1b / Methanol / NG-Southern-Asia	E3 Database	JEC 2011 v3c	Natural Gas
☐	CONCAWE GRCH3 / CGH2 / Methanol (APC) / NG-Remote	E3 Database	JEC 2011 v3c	Natural Gas
☐	CONCAWE GRME1 / Methanol / NG-Remote	E3 Database	JEC 2011 v3c	Natural Gas
☐	CONCAWE KOME / Methanol / Hard Coal Mix EU	E3 Database	JEC 2011 v3c	Coal
☐	CONCAWE SBET1a / Ethanol / sugar beet (animal fodder export)	E3 Database	JEC 2011 v3c	Sugar Beet
☐	CONCAWE SBET1b / Ethanol / sugar beet (animal fodder export)	E3 Database	JEC 2011 v3c	Sugar Beet
☐	CONCAWE SBET3 / Ethanol / sugar beet (pulp for combustion, waste water and slop for biogas)	E3 Database	JEC 2011 v3c	Sugar Beet
☐	CONCAWE STET1 / Ethanol / Wheat straw (Iogen)	E3 Database	JEC 2011 v3c	Wheat Straw
☐	CONCAWE WFET1 / Ethanol / Farmed Wood	E3 Database	JEC 2011 v3c	Farmed Wood
☐	CONCAWE WFME1 / Methanol / Biomass / Farmed Wood / BCL	E3 Database	JEC 2011 v3c	Farmed wood
☑	CONCAWE WTET1a / Ethanol / Wheat (NG fueled boiler)	E3 Database	JEC 2011 v3c	Wheat
☑	CONCAWE WTET1b / Ethanol / Wheat (NG fueled boiler), DDGS for Energy	E3 Database	JEC 2011 v3c	Wheat
☑	CONCAWE WTET2a / Ethanol / Wheat (NG fueled CHP)	E3 Database	JEC 2011 v3c	Wheat
☑	CONCAWE WTET2b / Ethanol / Wheat (NG fueled CHP, DDGS for energy)	E3 Database	JEC 2011 v3c	Wheat
☑	CONCAWE WTET3a / Ethanol / Wheat (lignite fueled CHP)	E3 Database	JEC 2011 v3c	Wheat
☑	CONCAWE WTET3b / Ethanol / Wheat (lignite fueled CHP, DDGS for energy)	E3 Database	JEC 2011 v3c	Wheat
☑	CONCAWE WTET4a / Ethanol / Wheat (straw fueled CHP)	E3 Database	JEC 2011 v3c	Wheat
☑	CONCAWE WTET4b / Ethanol / Wheat (straw fueled CHP, DDGS for energy)	E3 Database	JEC 2011 v3c	Wheat
☑	CONCAWE WTET5 / Ethanol / Wheat (DDGS for biogas)	E3 Database	JEC 2011 v3c	Wheat
☐	CONCAWE WWET1 / Ethanol / Residual Wood	E3 Database	JEC 2011 v3c	Waste Wood
☐	CONCAWE WWME1 / Methanol / Biomass / Wood residue / BCL	E3 Database	JEC 2011 v3c	Waste wood

Search for more Pathways | Compare the Selected Pathways | Start a new Search

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concawe Graphing Tool for WTW Results: WTT Emissions

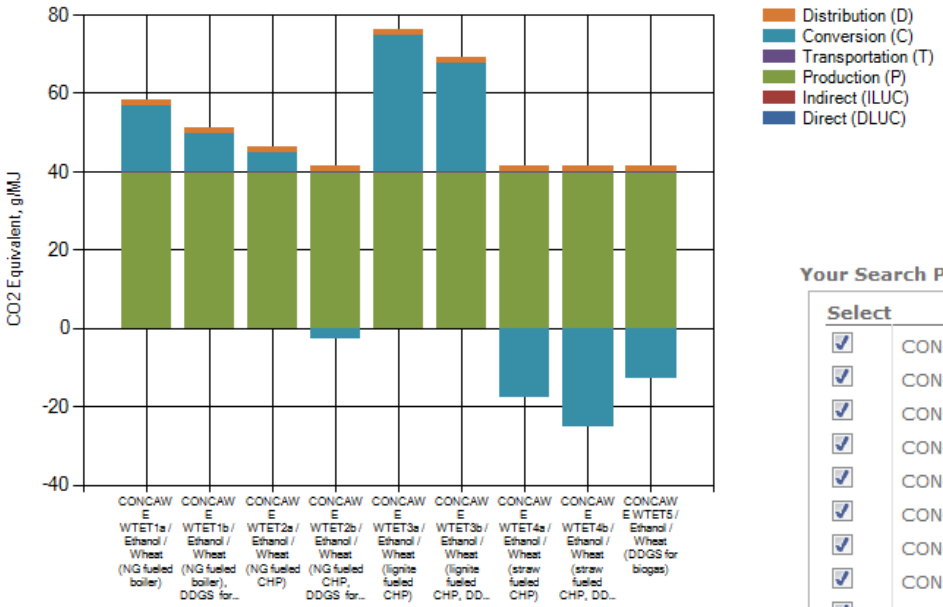
concawe Well-2-Wheel Databa

Search | View Selected

COMPARE THE PATHWAYS

Pathways | WtT and TtW Chart | Emissions Break-Down Chart | WtW Chart

WELL-TO-TANK EMISSIONS



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☑	CONCAWE WTET1b / Ethanol / Wheat (NG fueled boiler), DDGS for Energy
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☑	CONCAWE WTET4b / Ethanol / Wheat (straw fueled CHP, DDGS for energy)
☑	CONCAWE WTET5 / Ethanol / Wheat (DDGS for biogas)

OPTIONS

Choose unit type: ◉ g/MJ ○ g/km ☐ Include Tank-to-Wheel Data?

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concawe Graphing Tool for WTW Results: WTW Emissions

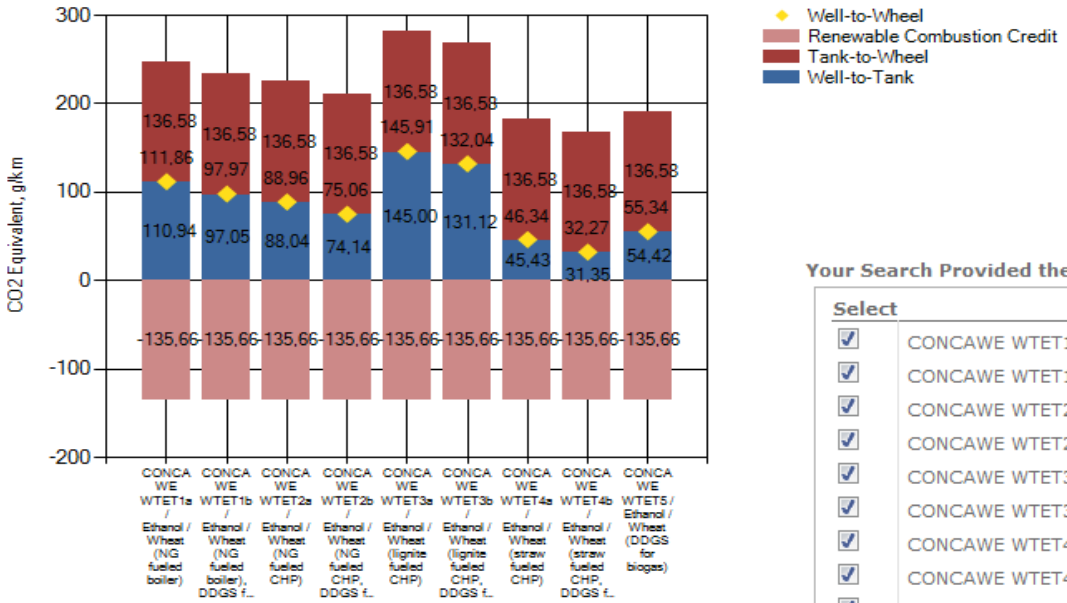
concawe Well-2-Wheel Databas

| Search | View Selected |

COMPARE THE PATHWAYS

Pathways | WtT and TtW Chart | Emissions Break-Down Chart | WtW Chart

WELL-TO-WHEEL EMISSIONS



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OPTIONS

Choose unit type: ○ g/MJ ◉ g/km

☑ Include Tank-to-Wheel Data?

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Graphing Tool for WTW Results

- Next Steps:
  - Improve the user interface
  - Adapt the data driver to the Version 4 WTT and TTW results
  - Test the graphing tool for robustness
  - If successful, make graphing tool available to interested users through the JEC Consortium site

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