

Skateboard Manufacturing Example

Analysis using MetaFlowScope™

Inputs: materials procured

<u>Item</u>	<u>Qty</u>	<u>Units</u>
Lock Nut	420.00	each
Bolt	420.00	each
Packaging Box	53.00	each
Riser Pad	104.00	each
Grip Tape	54.00	each
Standard Deck	52.00	each
Standard Truck Assembly	103.00	each

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Inputs: energy for manufacture

<u>Item</u>	<u>Qty</u>	<u>Units</u>
Energy:Electricity	200.00	kWh

Skateboard Manufacturing Example

Analysis using MetaFlowScope™

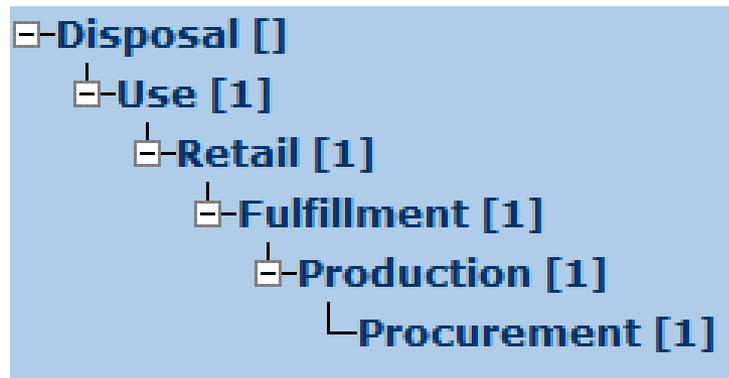
Output: production of 50 units – BOM per unit shown below

Name	Quantity	Unit
Lock Nut	8	each
Bolt	8	each
Packaging Box	1	each
Grip Tape	1	each
Riser Pad	2	each
Standard Deck	1	each
Standard Truck Assembly	2	each

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Value-chain model template (showing life-cycle stages)

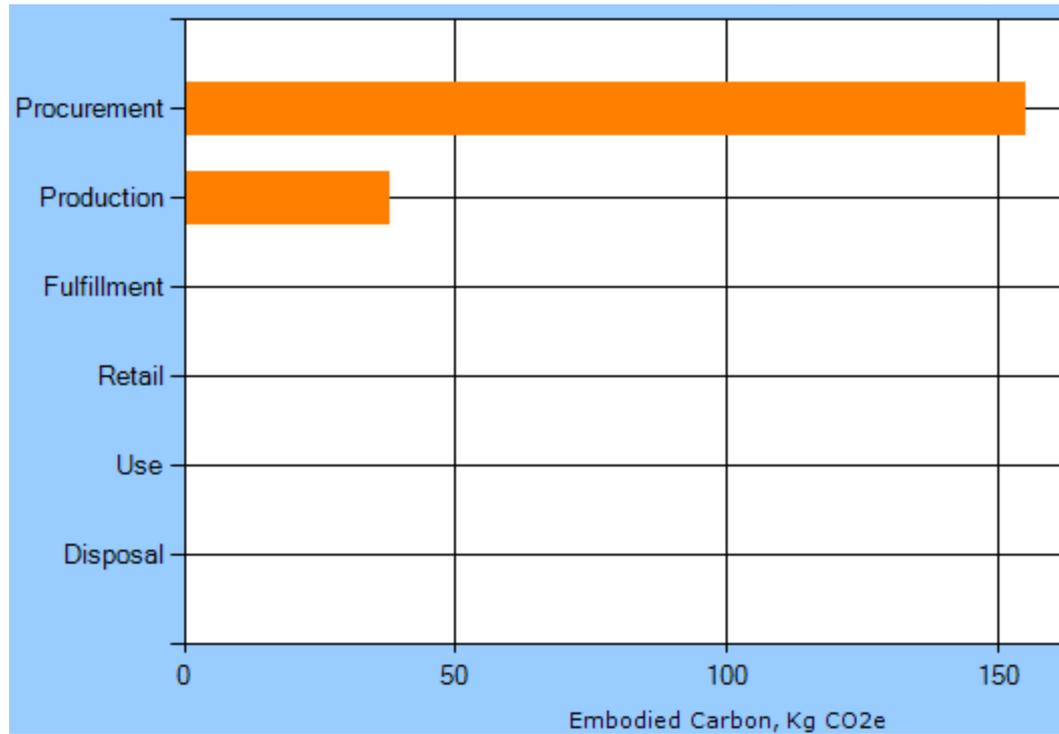


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Results by life-cycle stage

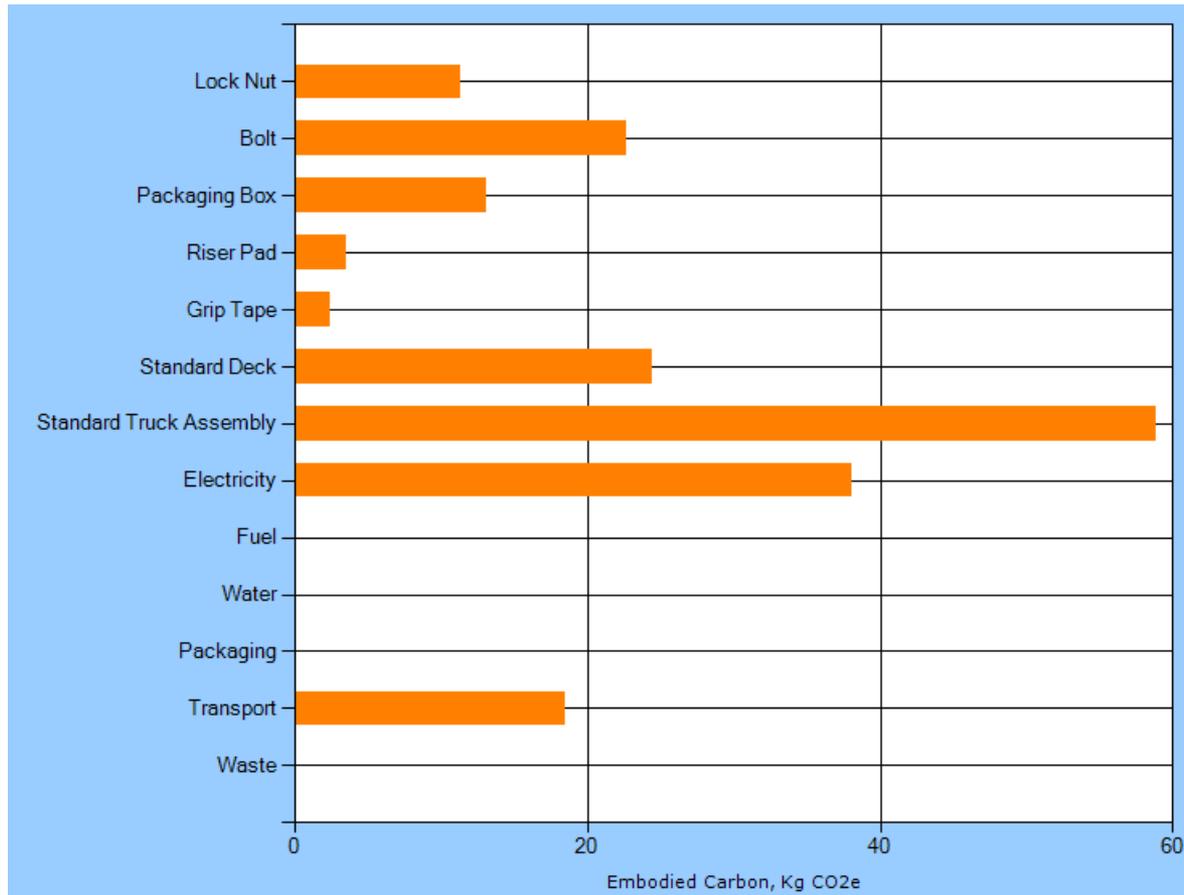
(end-of-life disposal excluded in this example; showing embodied carbon/GHG here – other views include embodied energy & water)



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Results by process



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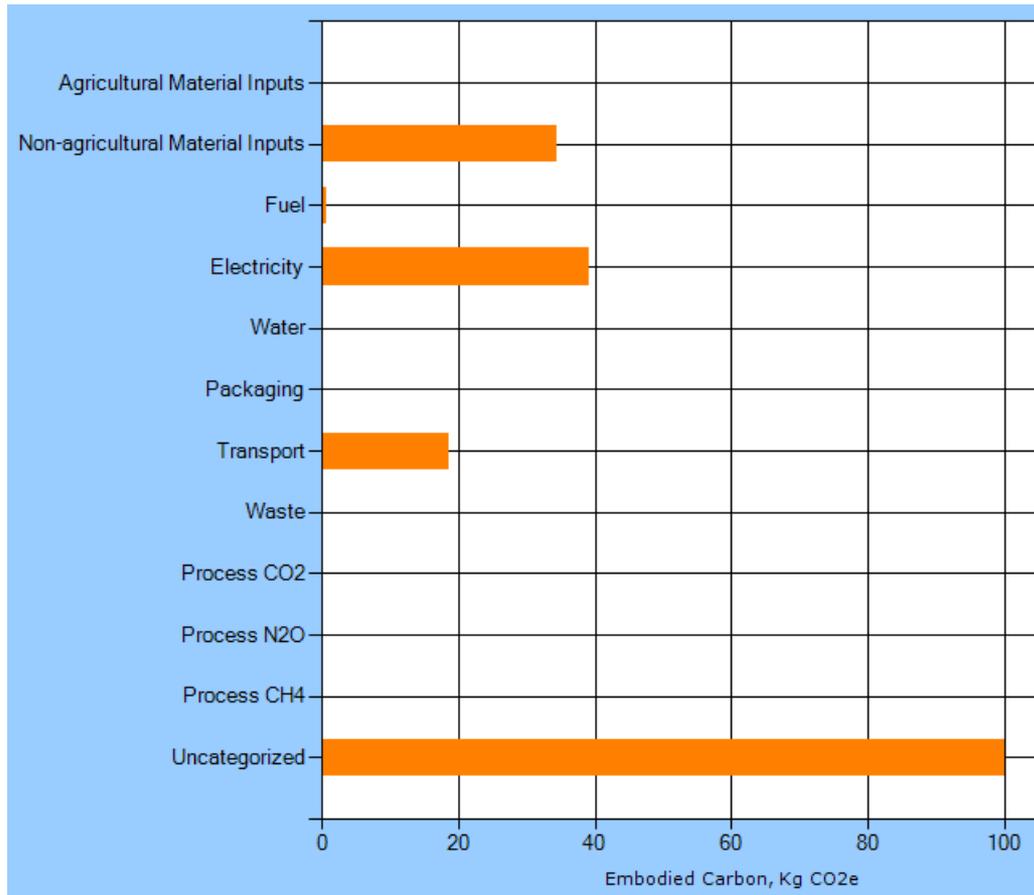
Results by model element (showing partial results, including emission scopes)

Model Element	Quantity	Unit	EE (MJ)	EW (L)	EC (Kg CO2e)	Scope	ScopeCategory
Lock Nut	420.000	each	124.368	0.000	11.335	3	1
Lock Nut:Semi-trailer truck	2000.000	km	24.892	0.000	1.896	3	4
Bolt	420.000	each	248.736	0.000	22.669	3	1
Bolt:Semi-trailer truck	2000.000	km	49.784	0.000	3.791	3	4
Packaging Box	53.000	each	315.572	0.000	13.070	3	1
Packaging Box:Semi-trailer truck	2000.000	km	20.941	0.000	1.595	3	4
Riser Pad	104.000	each	90.906	145.600	3.536	3	1
Riser Pad:Semi-trailer truck	2000.000	km	2.055	0.000	0.156	3	4
Grip Tape	54.000	each	39.266	0.601	2.460	3	1
Grip Tape:Semi-trailer truck	2000.000	km	2.134	0.000	0.162	3	4
Standard Deck	52.000	each	405.600	0.000	24.440	3	1
Standard Deck:Semi-trailer truck	2000.000	km	102.728	0.000	7.824	3	4

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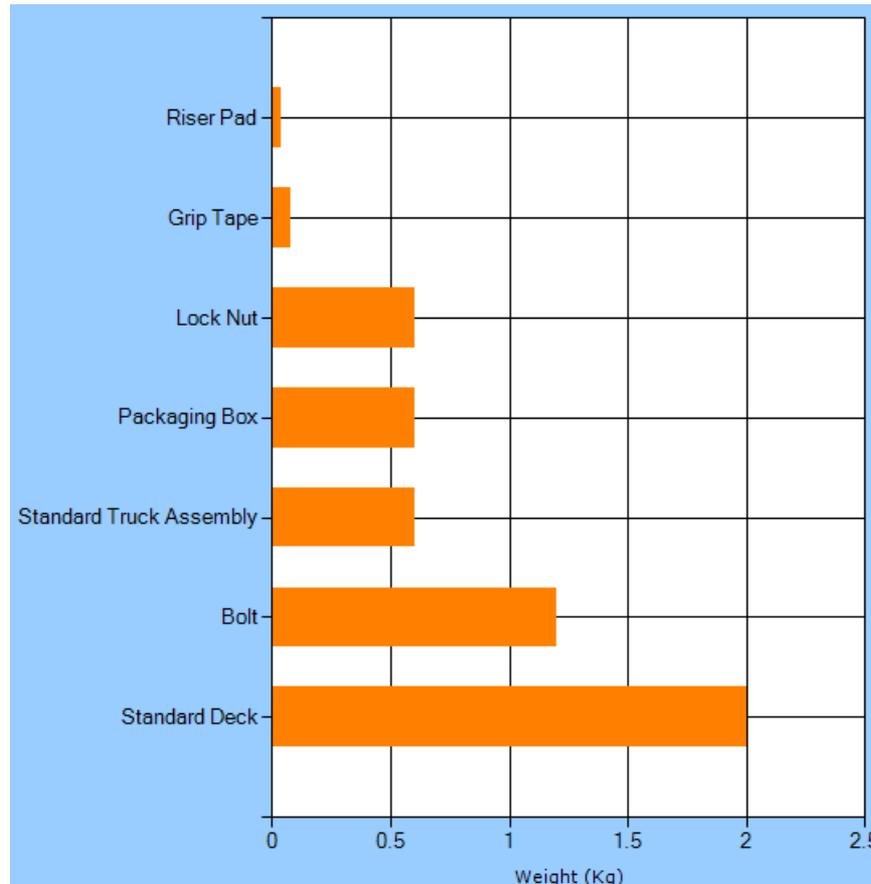
Results by emissions sources



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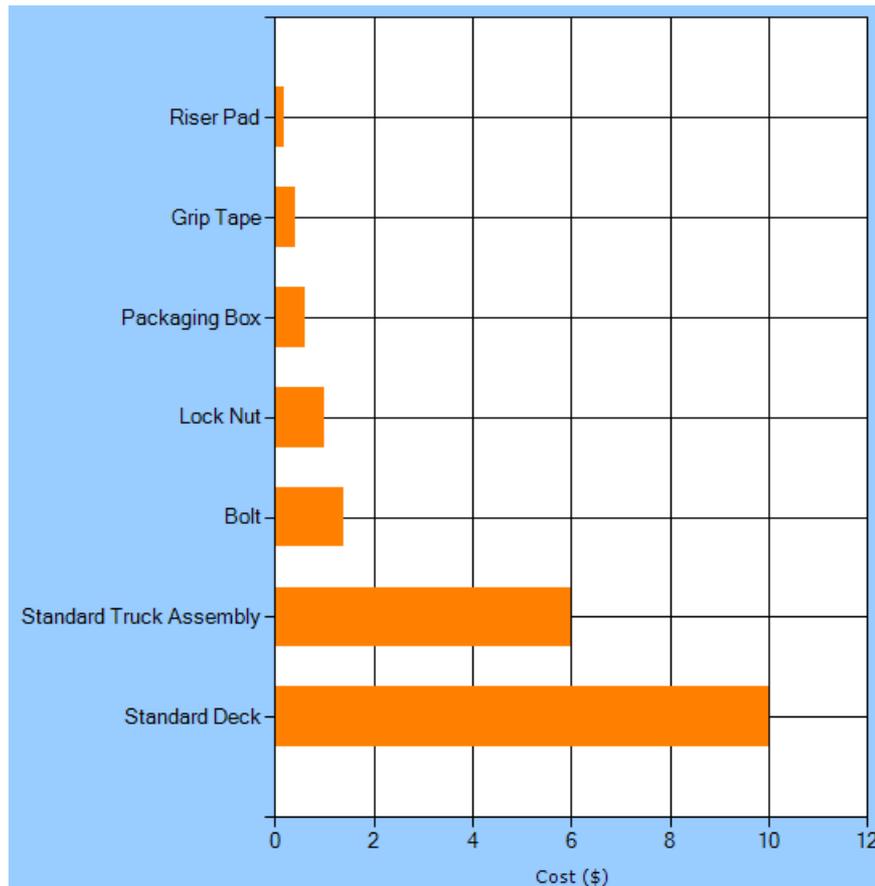
Materials flowing into waste stream (~5% average waste in this case)



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Economic value of waste components



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Analysis using MetaFlowScope™

Environmental value of waste components (choosing carbon as example)

