

Exercise - Working with hybrid data sets

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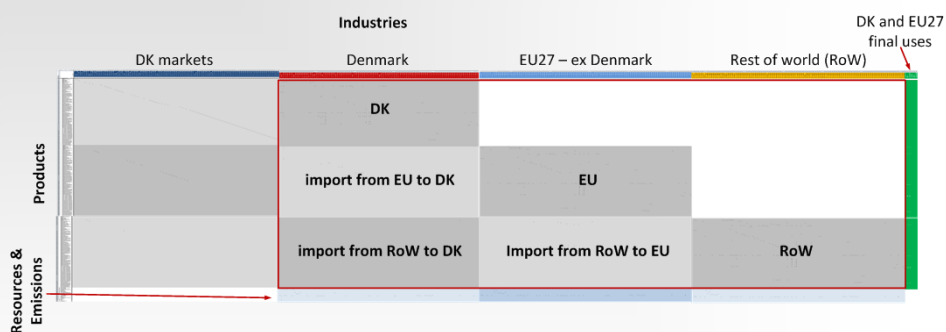
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Data for the workshop (excel file)



Task 1: Limited data – how to fill the gaps - embedded approach

EPS insulation sheet

- You have the following LCI data:
 - 3.48 MJ fuel oil/kg sheet (heating value = 42 MJ/kg)
 - 0.172 kWh electricity/kg sheet
 - 1.08 kg EPS (basic)/kg sheet
 - Besides fuel-related emissions, there is 0.0645 kg pentane emission to air (nothing else)
- You want to have 100% completeness and consistency in data
- Create LCA activity (= new column in excel sheet) for the EPS production
 - The production plant is located in India
 - Use the HIOT in the excel file to identify a default IO-LCA activity for plastics converters (with output of 1 kg plastics product)
 - => copy-paste activity and modify
 - Emission factors

Emission	kg emission/kg fuel oil
CO2	2.79
CH4	0.00317
N2O	0.000356
NOx	0.0179
SO2	0.0000546
CO	0.0450
NMVOC	0.0785

Task 2: Limited data – how to fill the gaps - tiered approach

EPS insulation sheet

- You have the following LCI data linked with ecoinvent:
 - 3.48 MJ fuel oil/kg sheet (linked to ecoinvent)
 - 0.172 kWh electricity/kg sheet (linked to ecoinvent)
 - 1.08 kg EPS (basic)/kg sheet (linked to ecoinvent)
 - Besides fuel-related emissions, there is 0.0645 kg pentane emission to air (nothing else)
- You want to have completeness in data
- Create LCA activities (= new columns in excel sheet) for the remaining inputs to EPS production
 - Create one activity for capital goods
 - Create one activity for services
- Create LCA activity (= new column in excel sheet) for the remaining inputs to EPS production
 - Create one activity for capital goods
 - Create one activity for services

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