



This project is co-financed by the European Union and the Republic of Turkey.

Technical Assistance for Developed Analytical Basis for Formulating Strategies and Actions towards Low Carbon Development



Fuel vs Energy



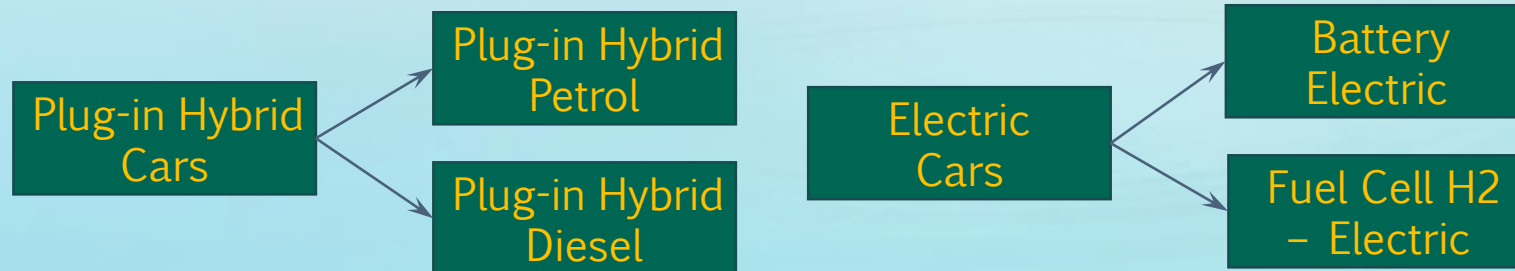
EMISIA SA presentation

October 2019, Ankara



Energy consumption calculation

- In order to facilitate new vehicle types COPERT 5 calculates energy and not fuel consumption



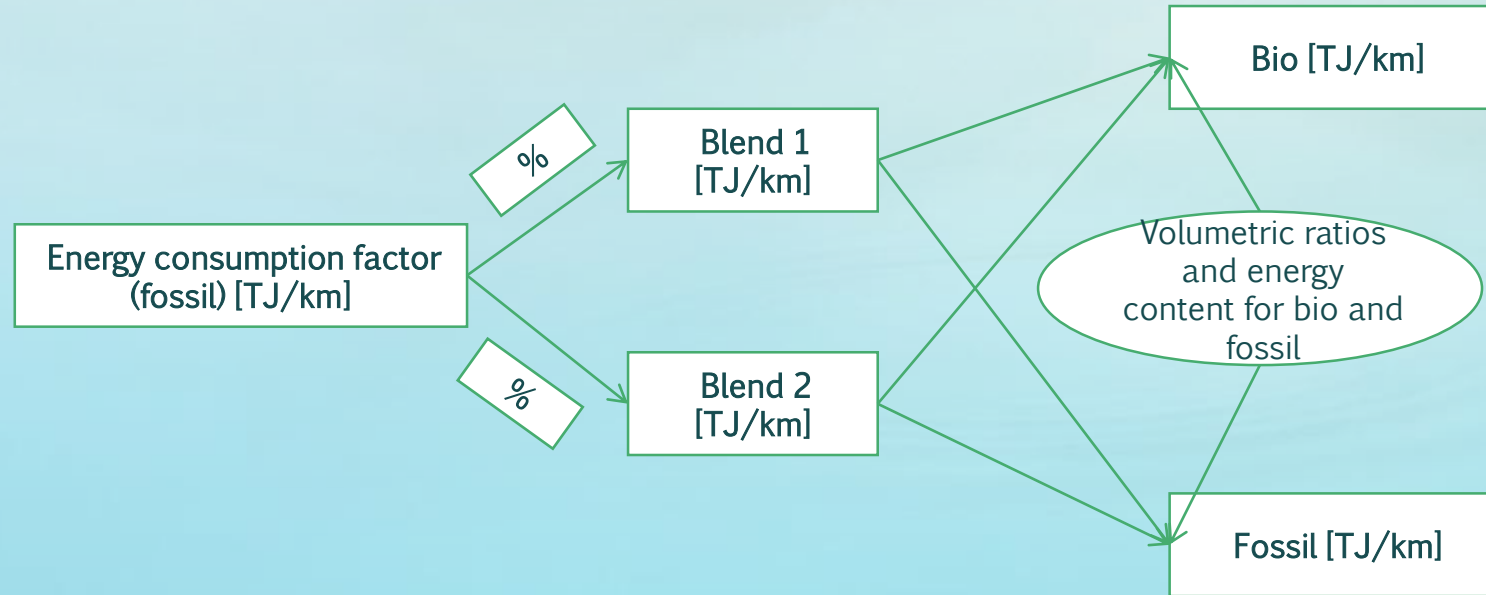
Hybrid and range-extender vehicles do not require an external energy source

COPERT 5 approach

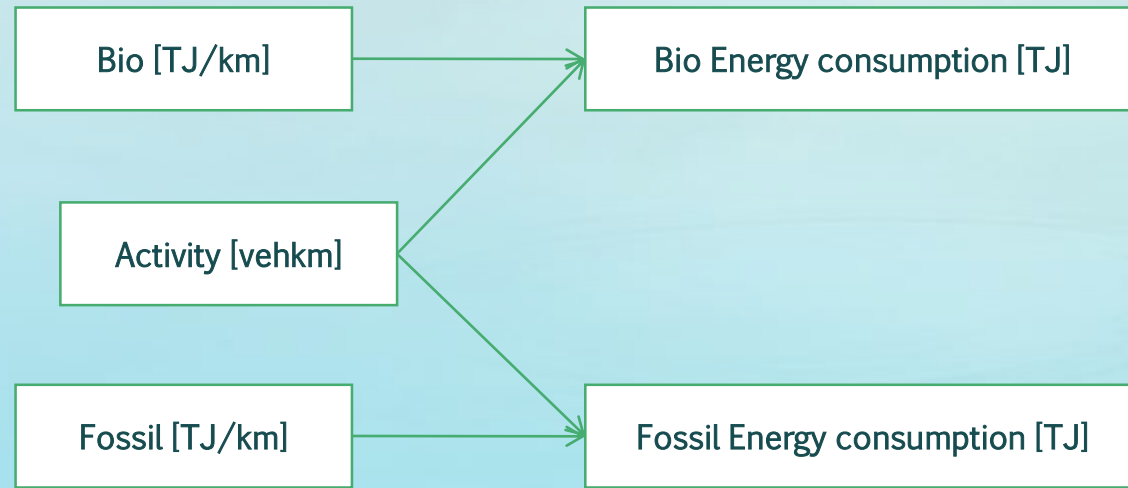
example of a vehicle

- Input data:
 - Vehicle type
 - Vehicle speed [km/h]
 - Primary fuel(s) consumption [TJ]
 - Primary fuel(s) energy content [MJ/kg]
 - Fuel blend(s) used
 - Fuel blend(s) energy share [%]

Energy allocation to primary fuels (2/2)



Energy consumption calculation



Pollutants affected

The use of biofuels in the fleet may have an impact on the following pollutants:

- CO₂
- Heavy Metals
- Minor effect on Evaporative Emissions
- SO₂

and the total energy consumption (under development)

Energy Breakdown form

Energy Breakdown

Drop Filter Fields Here All digits Export

Category	Fuel	Segment	Euro Standard	Fossil Bio Fuel						Grand Total	
				Fossil Petrol	Fossil Diesel	LPG	CNG	Bio Diesel	Bio Ethanol		
Buses	CNG	Urban CNG Buses	EEV				856.6402			856.6402	
		Urban CNG Buses Total					2,401.3224			2,401.3224	
	Biodiesel	Urban Biodiesel Buses	Conventional		0			0		0	
			Euro I		0			0		0	
			Euro II		0			0		0	
			Euro III		0			0		0	
			Euro IV		0			0		0	
			Euro V		0			0		0	
			Euro VI		0			0		0	
	Urban Biodiesel Buses Total				0		0		0		
Buses Total					41,219.5003		2,401.3224	0		43,620.8228	
L-Category	Petrol	Mopeds 2-stroke <50 cm ³	Conventional	1,618.2541					0	1,618.2541	
			Euro 1	1,079.1933					0	1,079.1933	
			Euro 2	1,166.5812					0	1,166.5812	
			Euro 3	283.9036					0	283.9036	
		Mopeds 2-stroke <50 cm ³ Total			4,147.9322					0	4,147.9322
		Mopeds 4-stroke <50 cm ³	Conventional	0					0	0	
			Euro 1	0					0	0	
			Euro 2	0					0	0	
			Euro 3	0					0	0	
		Mopeds 4-stroke <50 cm ³ Total			0					0	0
		Motorcycles 2-stroke >50 cm ³	Conventional	428.6699					0	428.6699	
			Euro 1	174.215					0	174.215	
			Euro 2	94.2891					0	94.2891	



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Thank you for your attention!

<http://www.lowcarbonturkey.org/>

