



Sustainable Tube packaging solutions – the recyclable Plastic Tube

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Sustainability definitions ...



Ability to sustain in spite of extracting resources for regular consumptions



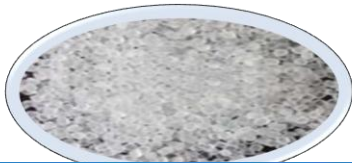
Maintaining a balance among Environment (resource), Society (needs) and Economy (affordability)



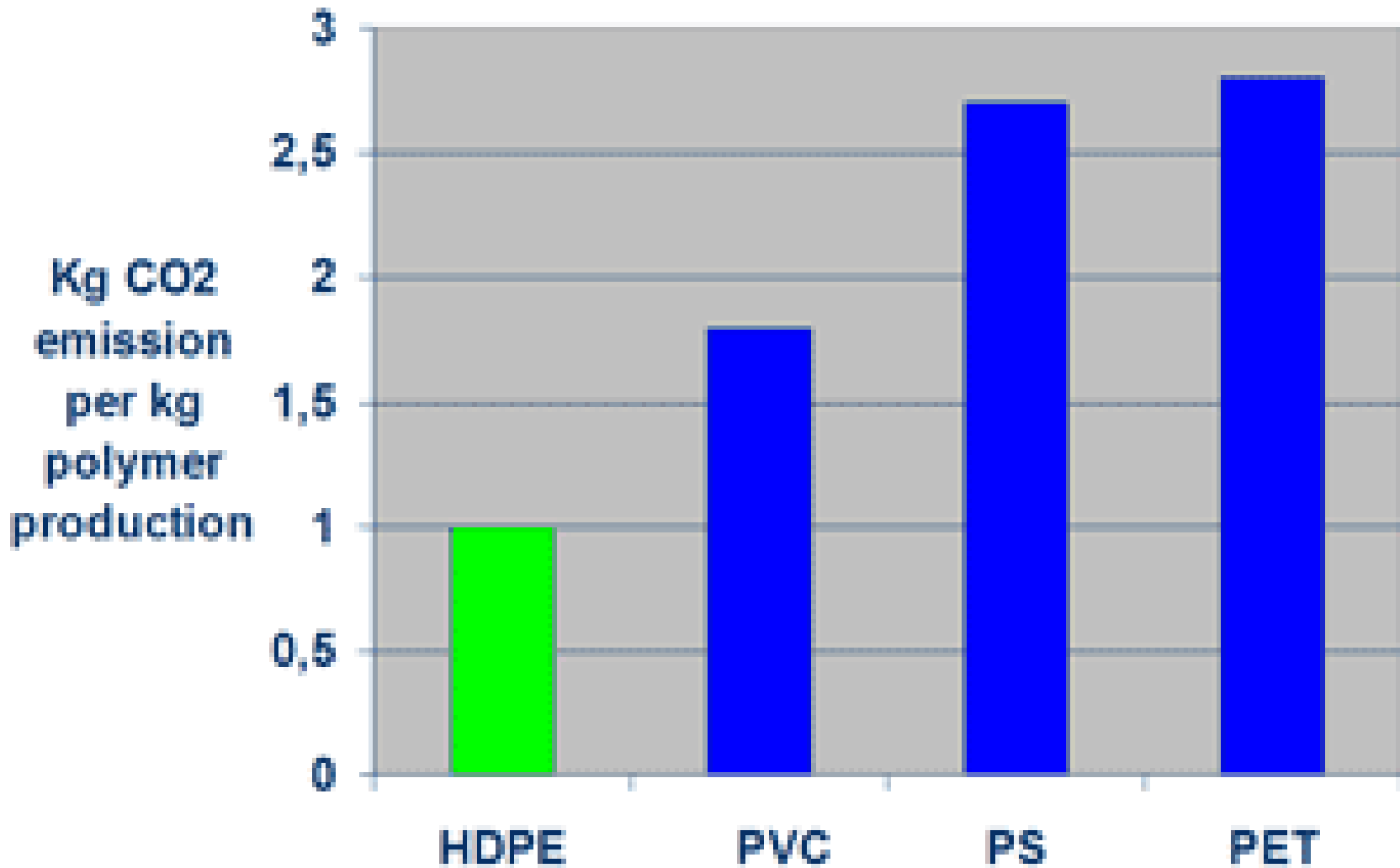
Respect the cycle of 'creation', 'sustenance' & 'destruction'



Plastic tube mfg. cycle



Environmental data



Grocery Bag LCA

Bag type	Paper (with 30% recycle)	Compostable plastic	HDPE
• Tot. energy used(MJ)	• 2622	• 2070	• 763
• Fossil fuel used (kg)	• 23.2	• 41.5	• 14.9
• Municipal solid waste (kg)	• 33.9	• 19.2	• 7.0
• Green house gas emission (co2 eq. MT)	• 0.8	• 0.18	• 0.04
• Fresh water used (lts)	• 265	• 269	• 15

* Data courtesy: ExxonMobil Chemicals

Sustainable tube design



PCR: post consumer regrind: once the consumer use the package and dispose it, organized recycle co. collect the same and convert in to granules for reusing in to original tube design



PIR: post industrial regrind: these are the process scrap that are collected systematically, segregated and convert in to granules for reusing in to original tube design



PLA: tube made out of polymers that are derived from poly lactic acid



Biopolymer: tube made out of polymers that are derived from renewable plant source

Sustainable tube design from Essel Propack

PCR tube, up to 90% PCR



100% PLA based tube

Thank you

