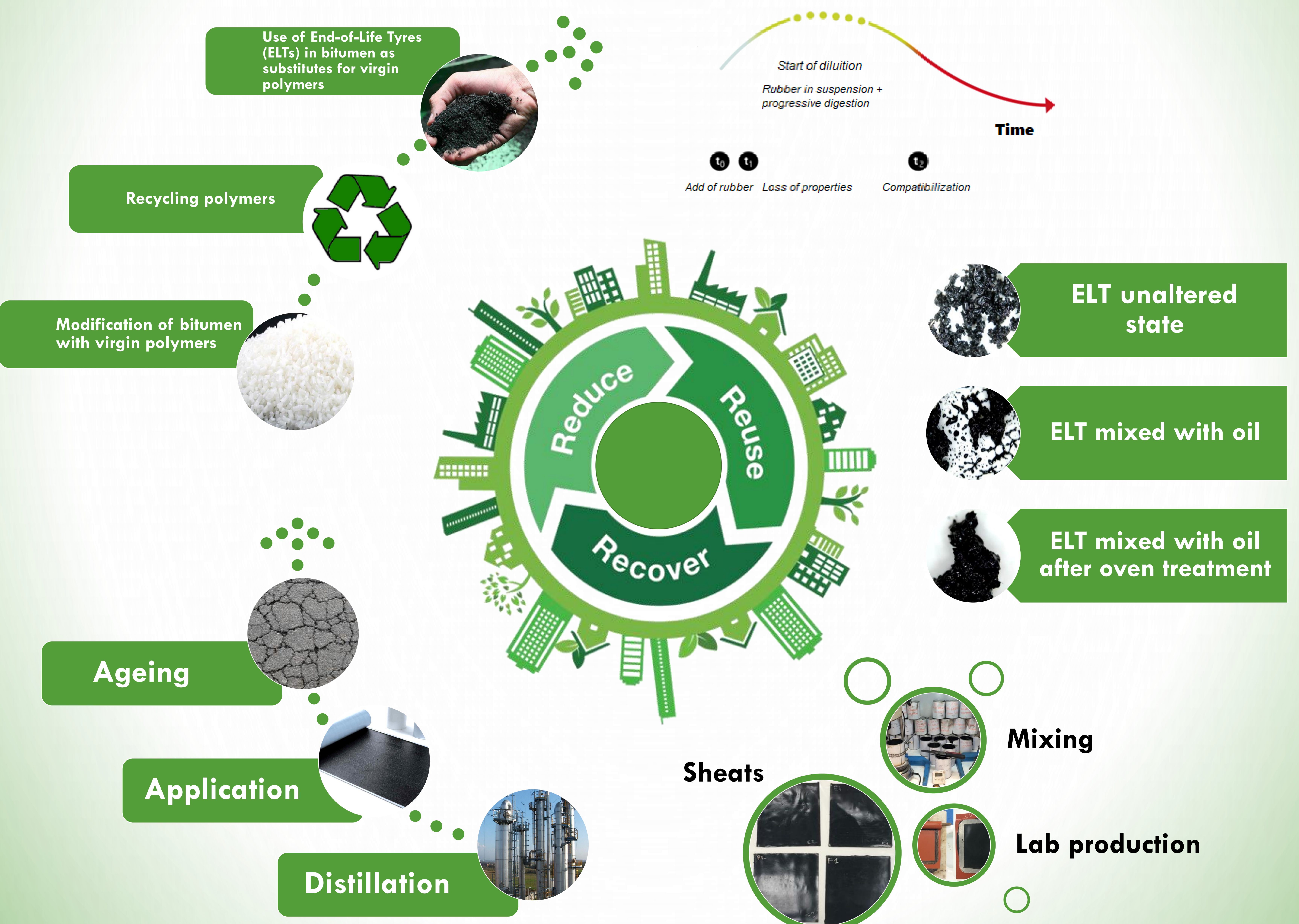


RECYCLED MATERIALS APPLICATIONS IN BITUMINOUS SHEETS: OPPORTUNITIES FOR A CIRCULAR ECONOMY

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	Sample 1	Sample 2	Sample 3	Sample 4	
Formulations	Bitumen API 160/220	57%	50%	50%	55%
	Recycled PE/PP	2%	2%	2%	2%
	Radial SBS	6%	3%	3%	4%
	Oil		5%		
	ELT Track & Bus (0 – 400 μm)		5%		4%
	ELT Track & Bus (0 – 400 μm) Pretreated			10 (5+5)%	
CaCO ₃	35%	35%	35%	35	
Properties	Cold Bend (°C)	-22.5	-22.5	-22.5	-22.5
	Cold Bend after Ageing 168 h @ 80 °C (°C)	-17.5	-15	-15	-10
	Δ Cold Bend (°C)	5	7.5	7.5	12.5
	Penetration @ 60 °C (dmm)	73	119	128	87
	Ring & Ball (°C)	108	107	108	110
	Viscosity (cPs)	11500	6500	6250	14000
	Spreadability (0-5)	5	3	3	2