



**Arkema's expertise in plant chemistry  
at the service of sustainable development**



# Arkema's chemistry ready to take up the challenges of the 21st century

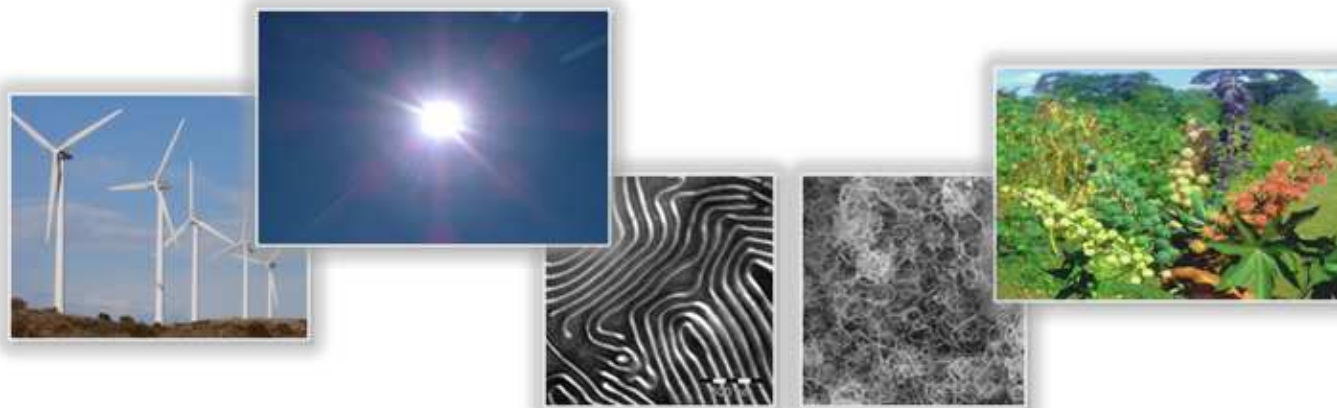
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## ›› Innovative materials

- **New energies:** Arkema, a player of the photovoltaics sector
- **Storing energy:** batteries, supercapacitors, fuel cells
- **Nanostructured materials and supramolecular chemistry**
- **Renewable raw materials: the example of Pebax® Rnew**

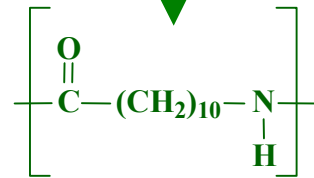
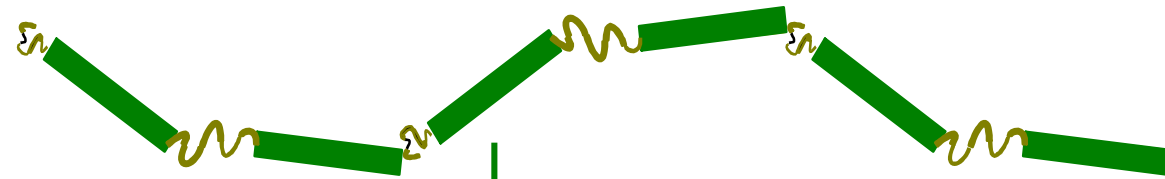
## ›› Process intensification

- **Producing more with less energy**

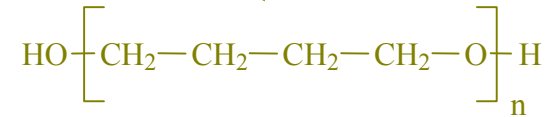


# What is Pebax® Rnew ?


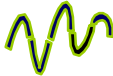
➤➤ An elastomer based on a flexible block / rigid block polyamide chemistry



**PA 11**



**PTMG**

	<b>Polyamide: rigid block</b>
	<b>Polyether: flexible block</b>

# Pebax<sup>®</sup> Rnew: outstanding properties

## »» Pebax Rnew, the first elastomer of vegetable origin



### Lightness

*20% lighter than competitive materials*



### Flexibility

*From soft rubber-like behavior to rigid nylon-like behavior*



### Elasticity

*Best flex fatigue resistance & highest energy return*



### Weathering resistance

*UV resistance, properties unaffected by low temperature*



### Processability

*Cycle times 10 to 30% shorter than for competitive materials*



**Fossil energy  
consumption \***

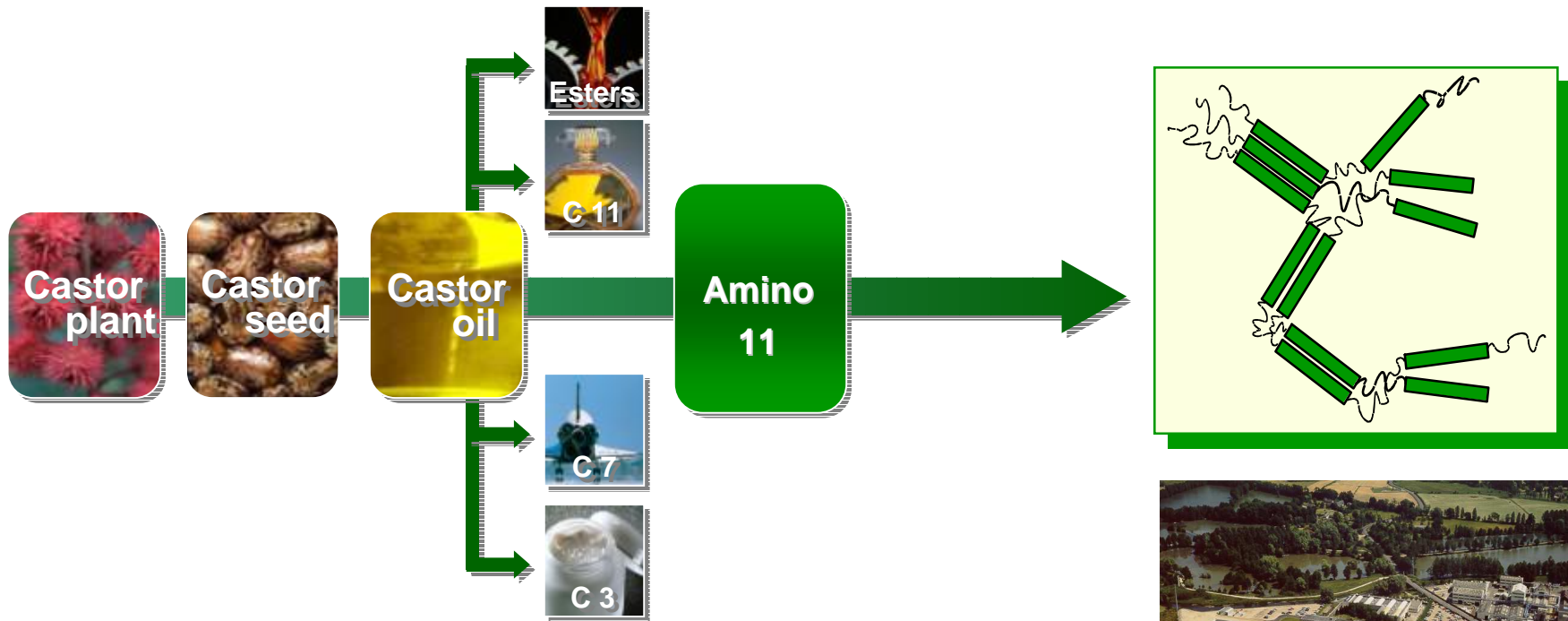
**- 29%**

**CO<sub>2</sub> emissions \***

**- 32%**

\* Eco-profile as per ISO 14040-43 standards

# Bio-sourced performance polymers from Arkema



**Monomers and byproducts**  
*Marseille, France*



**Polyamides**  
*Serquigny, France*

# Pebax® Rnew: many application sectors



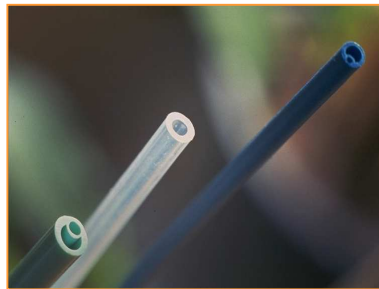
**Automotive**



**Sports**



**Medical**



**Medical**



**Electronics**



**Sports**



**Textile**