



Bioplastics

Sustaining a Marine Environment

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Plastics Have Changed Our Lives!



Harnessing E-Beam and X-Ray Technologies to Clean, Heal, and Feed the World, and beyond...

The Reality Today....



Harnessing E-Beam and X-Ray Technologies to Clean, Heal, and Feed the World, and beyond...



The Reality Today



THIS IS UNSUSTAINABLE



Harnessing E-Beam and X-Ray Technologies to Clean, Heal, and Feed the World, and beyond...



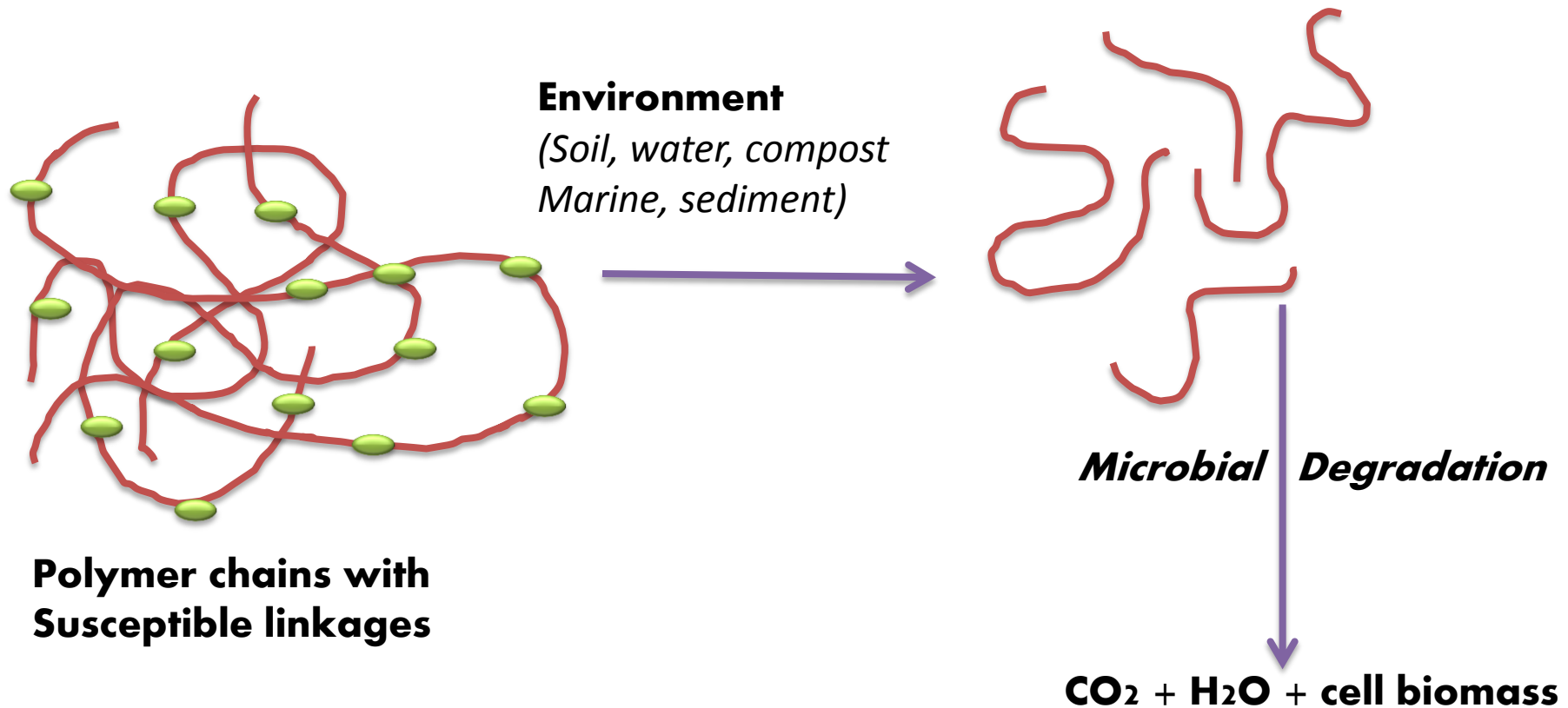
Everything is Interconnected!!



ONE-HEALTH



Bioplastics – the Need is Urgent!



The Need is Urgent

- **High Performance and multi-functional plastics**
- **Plastics that can degrade in land and water**



- **Plastics made from agricultural wastes**



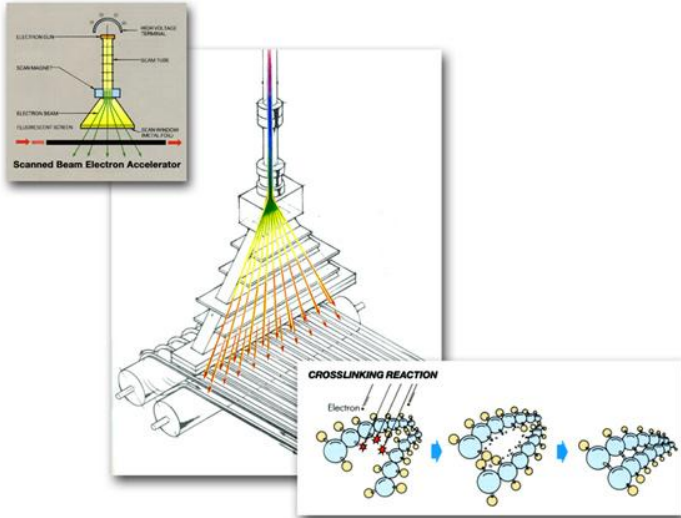
Change is Already Taking Place !



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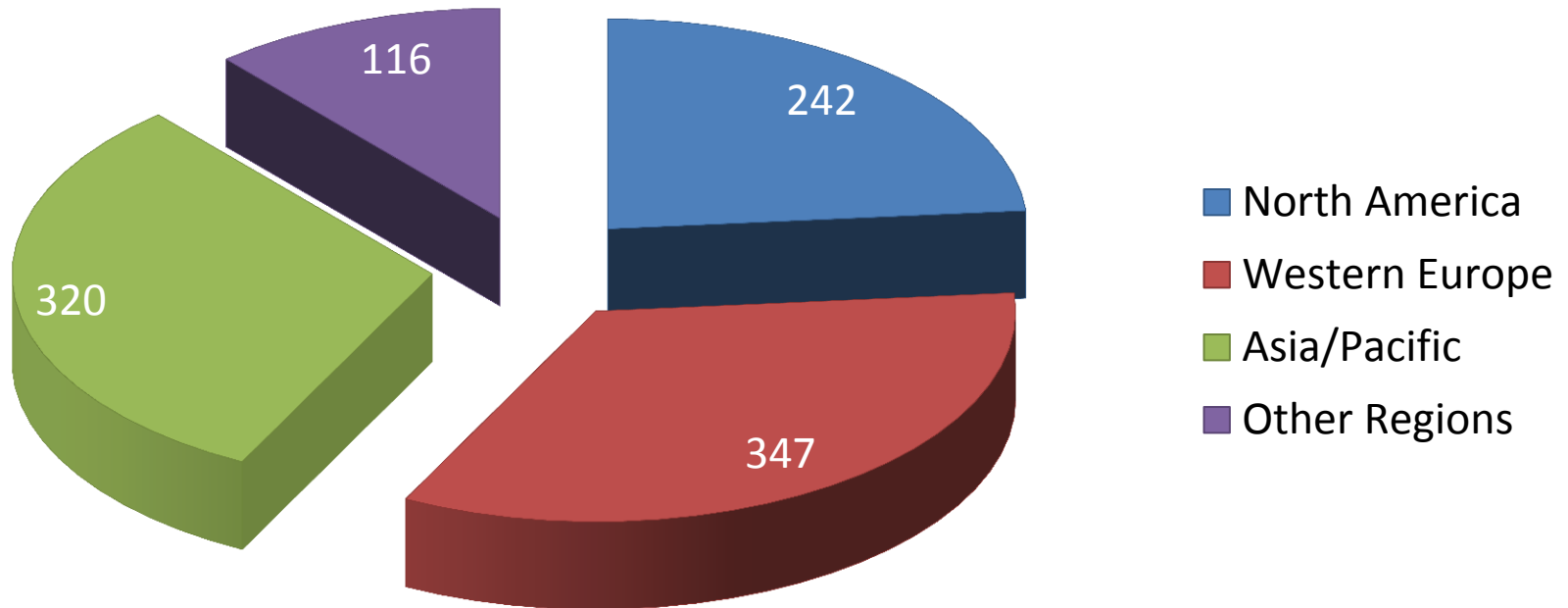
Technology Driving Bioplastics

Electron Beam Technology



Bioplastic Industry ~ \$ 3 billion

Bioplastics Demand (thousand metric tons)

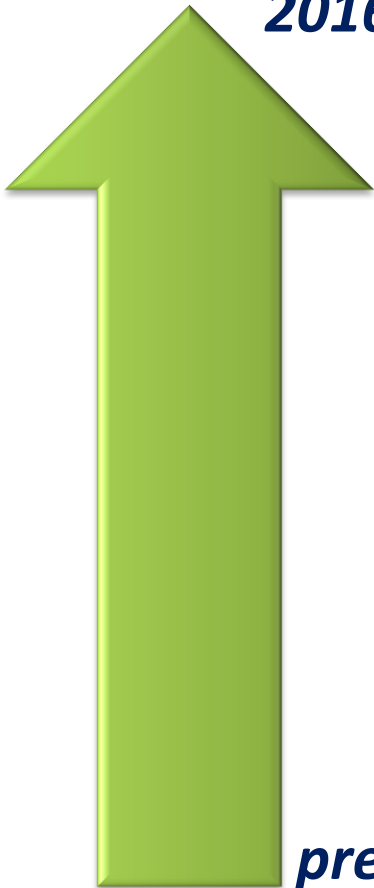


Bioplastic Industry Growth Areas

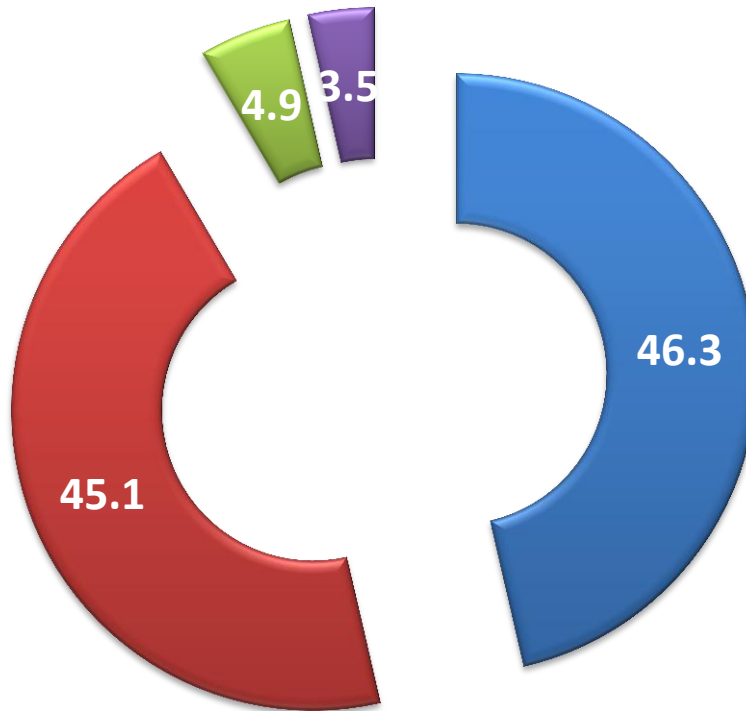
Global Bioplastic Production Capacity (%)

500%

2016



present



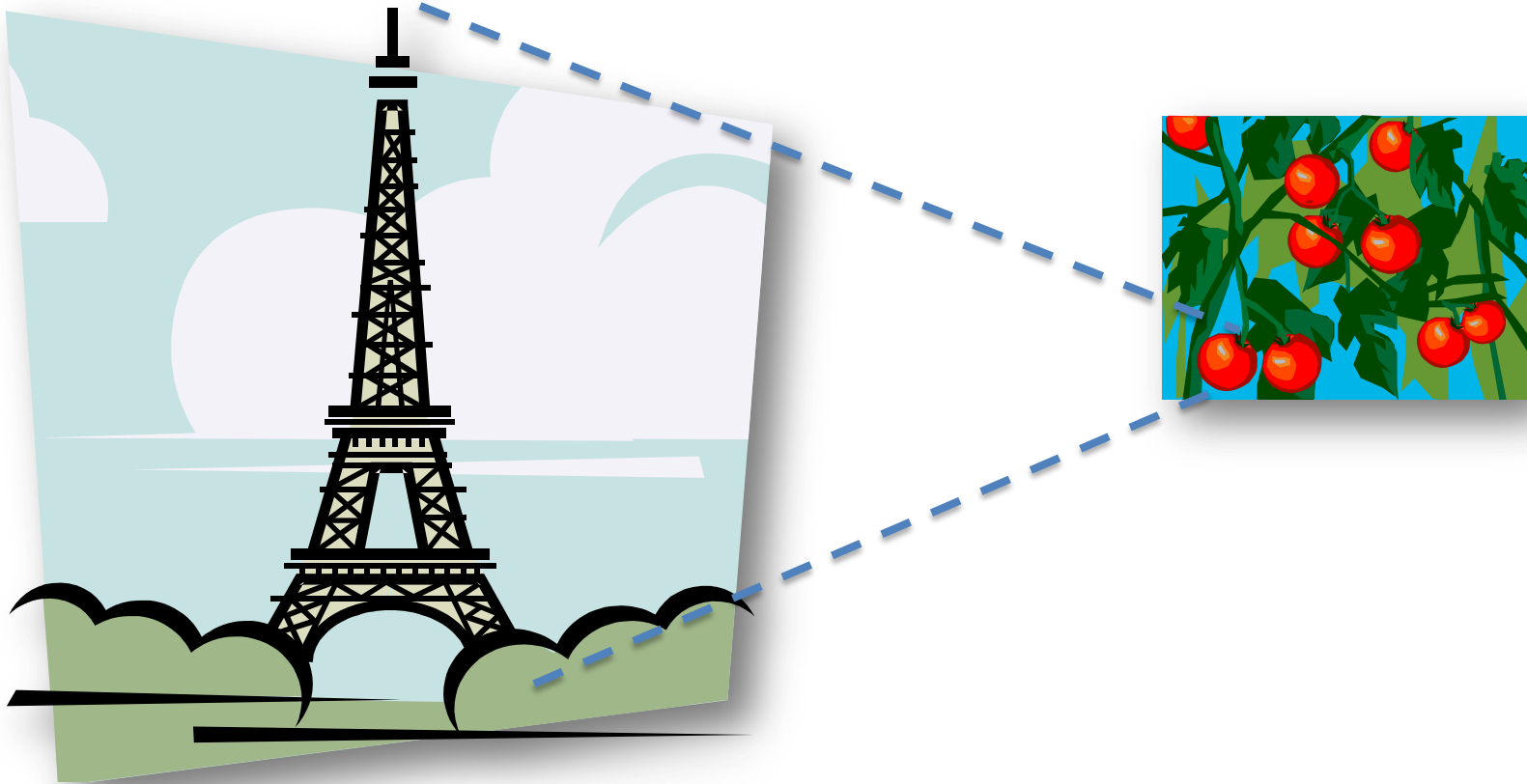
- Asia
- South America
- Europe
- North America

European Bioplastics, 2013



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Bioplastics will use only 0.006% of global agricultural area



Size of an average cherry tomato to that of the Eiffel Tower!!!



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Technology Transfer and Training are Key!



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