

*Plastics &
Sustainability
The Paradox*

*Plastic Packaging Research & Development Center
(PPRDC)*

Brand Owners' Meet

Noida 14th, December 2022



Swapan Ray, Honorary Secretary

Indian Centre for Plastics in the Environment (ICPE)

Plastics – Ubiquitous around us



Agriculture
Production &
Distribution



Consumer
Goods
Packaging



Building &
Construction



Plastics

Medical &
Healthcare



Industrial &
Electronics



Automobile &
Transportation





Plastics – The Image Issue

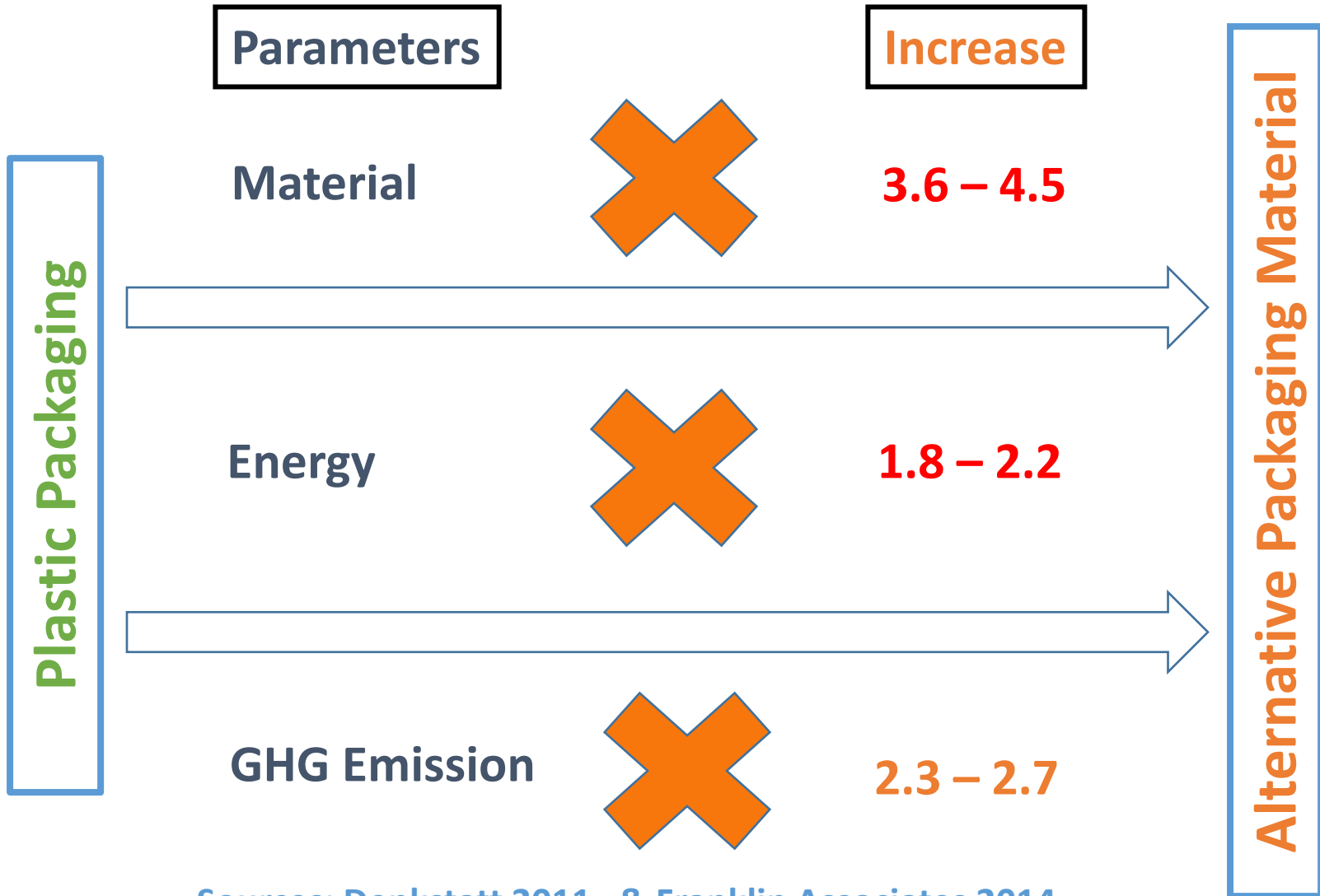
Plastics are not inherently bad. It's what we do or don't do with them that counts.Sylvia Earle



Dr. Christine Figgener

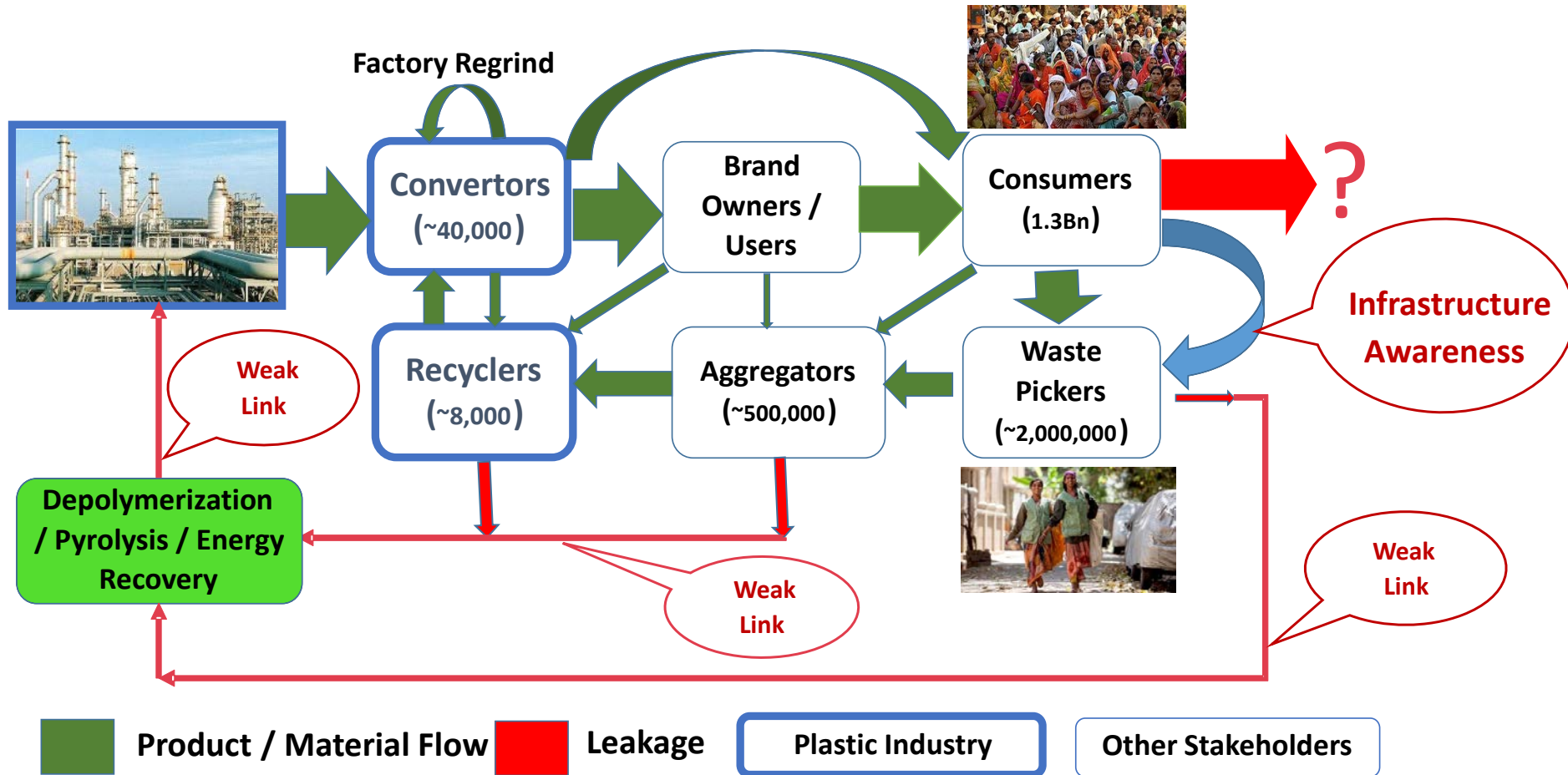
Blue Planet
Sir. David Attenborough

Packaging – Environmental Impact



Sources: Denkstatt 2011 & Franklin Associates 2014

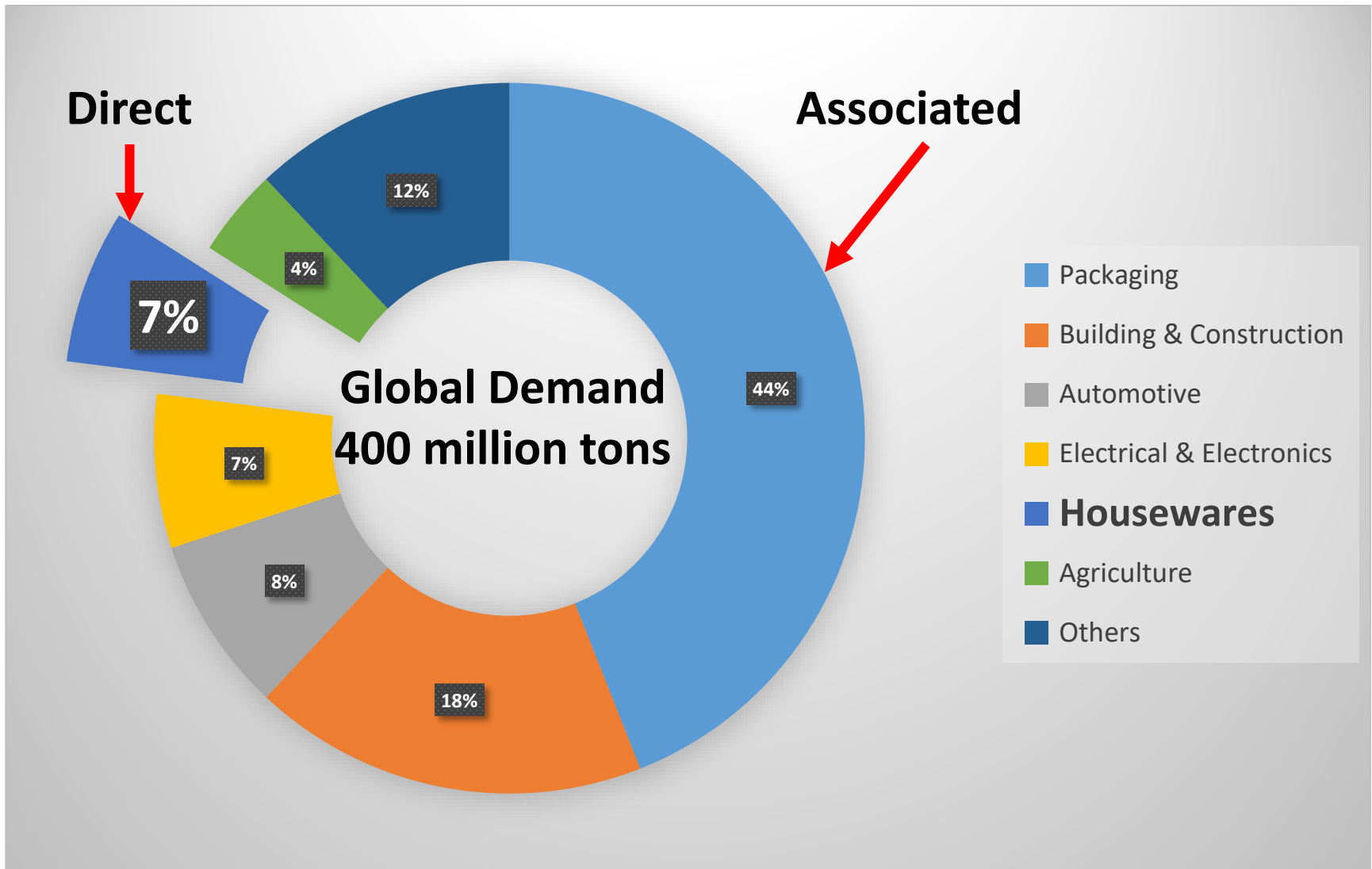
Circularity : Plastic industry value chain



Courtesy : ICPE

*Transition to **Circular Economy** can mitigate the crisis*

Plastics Pollution – The Challenge



Limited space to reduce demand without changes in consumer behavior

Sustainability – Three Pillars



**#1
Reduce**

- First step of sustainability
- Weight reduction, material switch, design changes
- Reducing material, energy and water footprints



**#2
Reuse**

- Multiple Use
- Refurbishing
- Alternative Use

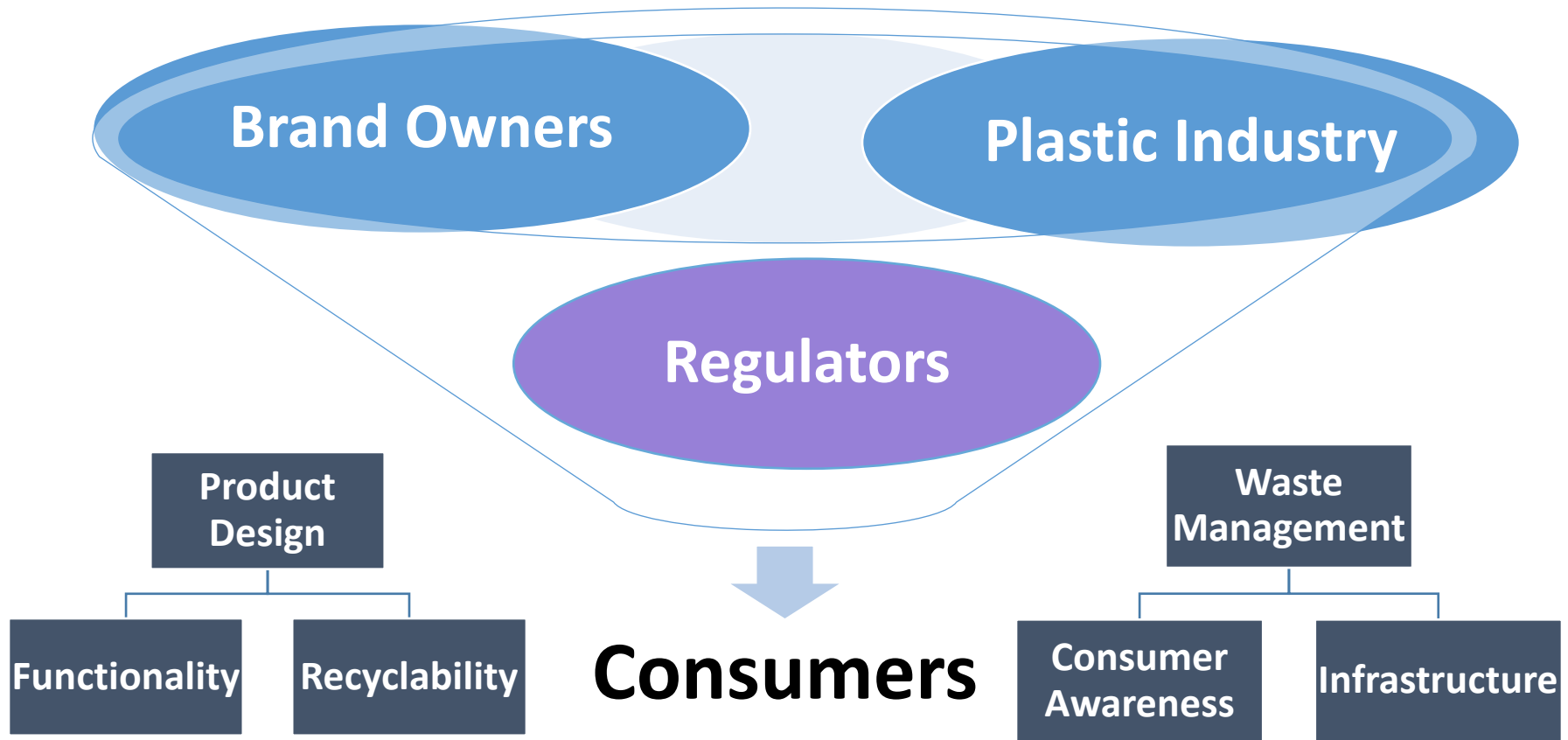


**#3
Recycle**

- Mechanical Recycling
- Chemical Recycling
- Feedstock Recycling

Hierarchy to reduce environmental impact

Way Forward



Mutual Trust & Collaboration

Thank You

