

# Environmental issues and project objectives

1<sup>st</sup> international workshop  
Padua, Italy  
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# The numbers

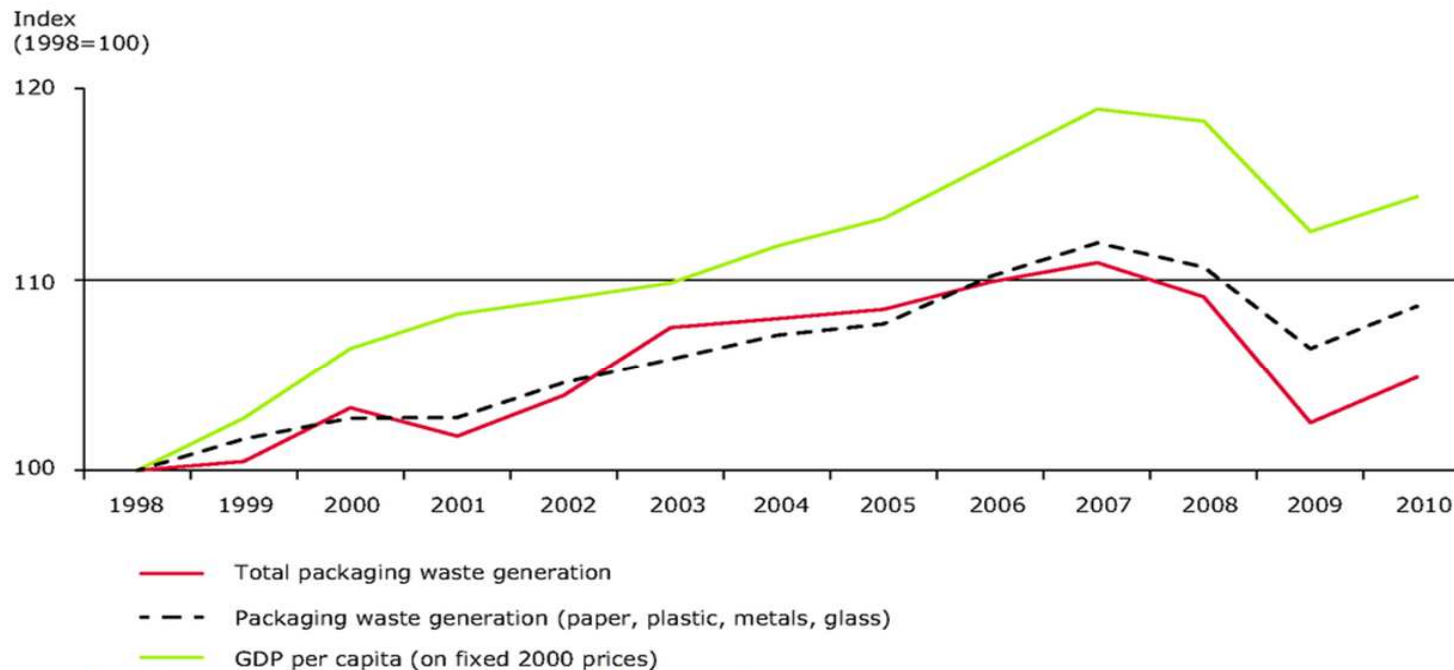
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## □ kg waste packaging per capita per year

- 189
- 195,6
- 42,5
- 99,5
- Italy
- Germany
- Bulgaria
- Slovenia

# Packaging waste vs GDP

**Fig. 3: Generation of packaging waste and GDP in the EU-15**



Note: The figure shows the generation of packaging waste and GDP in the EU-15 countries from 1998-2010

**Data source:**

- Population statistics (Eurostat) provided by Eurostat - Statistical Office of the European Union (ESTAT)
- GDP and main components - volumes (Eurostat) provided by Eurostat - Statistical Office of the European Union (ESTAT)
- Data on packaging and packaging waste (Eurostat) provided by Eurostat - Statistical Office of the European Union (ESTAT)

# Consider design requirements!

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- ❑ food packaging represents around 50% of packaging
- ❑ enables our way of life
- ❑ overpackaging by 10% ⇒
  
- ❑ underpackaging by 10%  
⇒ 100 % waste

# Balanced focus

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## Germany - high recycling rate focus

pictures are symbolic

laminated pouch – non recyclable

weight =11 g

waste =11 g

metal can

weight = 120 g

waste =24 g

glass jar

weight = 470 g

waste =94,5 g



# A case of danish bottles

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compromises  
will be  
required

# It's not black and white or static

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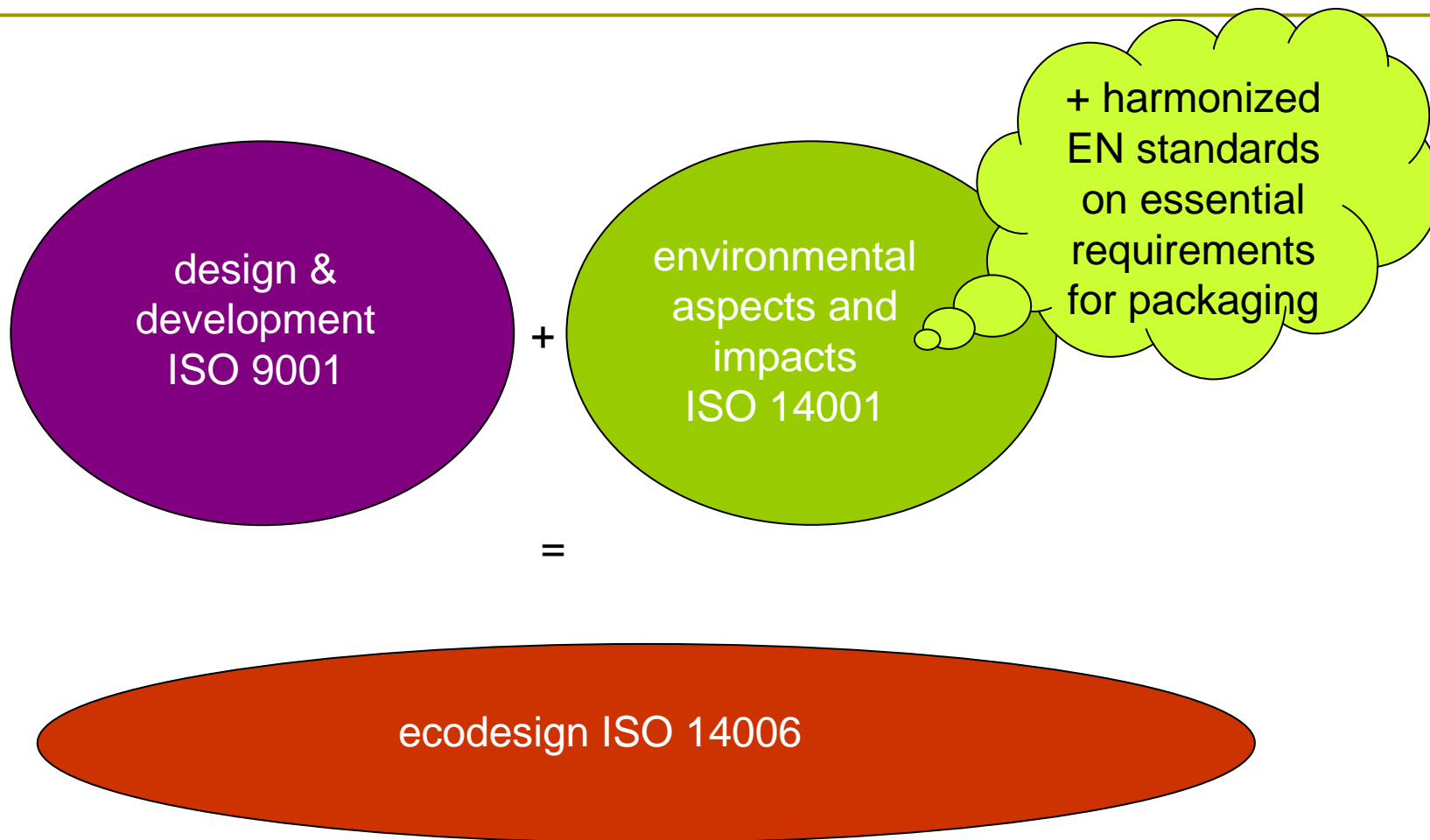
# A never ending story!

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- Packaging improvement is a continuous process
  - new packaging materials
  - better quality of existing materials,
  - cheaper materials
  - new machinery
  - ...



# It's management



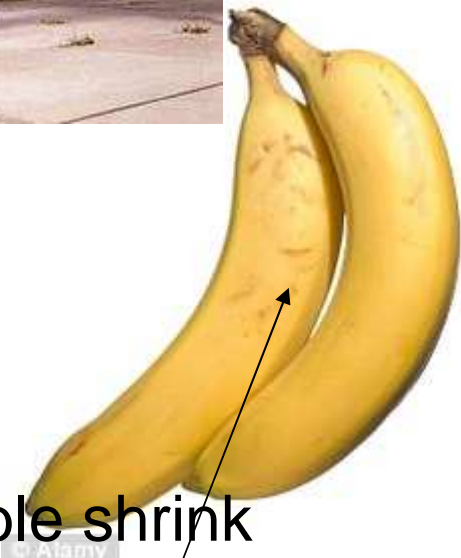
# Benefits for companies may be

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- ❑ cheaper packaging
- ❑ less weight
- ❑ simpler materials,
- ❑ more recycled materials,
- ❑ more recyclable materials
- ❑ packaging from a nearer location
- ❑ less embedded carbon
- ❑ public image
- ❑ compliance with legislation
- ❑ ...

# avoiding...

[http://www.youtube.com/watch?v=Y4yBvvGi\\_2A&feature=player\\_embedded](http://www.youtube.com/watch?v=Y4yBvvGi_2A&feature=player_embedded)



biodegradable shrink wrap intelligent packaging

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